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**Demography and the Population Problem in India
Data, Research and Policy, 1938-1974**

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Demography and the Population Problem in India: Data, Research and Policy, 1938-1974

Cathryn Johnston

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

King's College London

Department of History

DECLARATION

This thesis represents my own work. Where the work of others is mentioned, it is duly referenced and acknowledged as such.

Cathryn Johnston

London, 30th October, 2015

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ABSTRACT

This thesis is about the relationship between research, data and the population problem in India between 1938 and 1974. It argues that the research practices and the data collected by demographers and social scientists in India are crucial to understanding how the population problem was framed, understood, and acted on. New kinds of research such as sample surveys, and knowledge attitude and practice (KAP) surveys were instrumental in constructing India as an overpopulated country in the twentieth century, as well as in furnishing India with the means to use and challenge this label by the 1970s. Many of the arguments made about the history of population control in India have focused on the role of the international network of population control experts in shaping the policies implemented by the Indian Government. This historiography has stressed the importance of contraception and of American expertise. This thesis re-frames this narrative by focusing on social science research and researchers as they worked in and on India. It examines the importance of behavioural approaches to family planning and population control, and their role in shaping how the population problem was understood and acted on. It revisits the importance of arguments about development, modernization, and fertility, focusing on the importance of different developmental models and their impact on population policy in the post-colonial period. It charts the connections between research and policy, exploring how they raised new questions about the empirical reality of the population problem, about the proper way to measure and understand it, and ultimately, explores the relationship between the state, statistics and individuals.

LIST OF ABBREVIATIONS

DTRC	Demographic Training and Research Committee
ECAFE	UN Economic Commission for Asia and the Far East
FPAI	Family Planning Association of India
FPRPC	Family Planning Research and Programmes Committee
IIPS	Indian Institute for Population Studies
ISI	Indian Statistical Institute
IUCD	Intrauterine Contraceptive Device
KAP	Knowledge, Attitude, Practice
NPC	National Planning Committee
NSS	National Sample Survey
RPC	Research and Programmes Committee
UN	United Nations
USAID	United States Agency for International Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

ACKNOWLEDGEMENTS

Thanks goes first and foremost to my supervisors, Dr. Jahnavi Phalkey and Dr. Jon Wilson for their patience, their support and their guidance. Professor David Edgerton was also unfailingly generous with his time, and with valuable criticisms, for which I am very grateful.

The help of friends and colleagues was invaluable – my thanks to Michael, Kapil, Ale, Gabi, Amy, Maggie and Aaro, who helped combine intellectual pursuits with a sense of fun. I owe particular thanks to Shankar and Avinash for putting me up in India, as well as for being endlessly patient with sightseeing, translating, and the excitements (and difficulties) of research and travel in general.

Barbara Floyd at the University of Toledo went above and beyond the call of duty – my thanks to her and to Mr. Floyd for their help, but also for their kindness. The staff at the University of Toledo, the Rockefeller Archive Center in New York, at the British Library, and the Nehru Memorial Museum and Library have been incredibly generous with their time and expertise; I thank them all.

Finally, I would like to thank the people who have had to put up with the most: Mom, Dad and Ben. Without your support and your help I couldn't have done it.

Table of Contents

Declaration	3
Abstract.....	5
List of Abbreviations	6
Acknowledgements	7
Introduction	11
Chapter One: The Census, Data and the Population Problem, 1931-1941	35
Chapter Two: Planning and the Population Problem in Independent India.....	59
Chapter Three: Institutionalizing Demographic Research	91
Chapter Four: Research, Action and Extension Education in the Third Five Year Plan.....	123
Chapter Five: From Mass Communication to Mass Camps	149
Chapter Six: Challenging the Population Problem in the early 1970s	183
Conclusion	213
Bibliography	219

INTRODUCTION

In 1951, the young demographer Sripati Chandrasekhar gave the Presidential Speech at the First All-India Family Planning Conference. Arguing with a 'torrential eloquence', he sought to convince those assembled of the scale of India's population problem and to plead for family planning. 'Uncontrolled human fertility' was, he claimed, 'one of the gravest problems of our time'.¹ It was problem of many dimensions, and Chandrasekhar drew on a well-established body of population thought in India to argue about it, ranging from population distribution to growth, from food and natural resources to international peace. India's population density, its rate of growth and declining mortality, and their impact on the vision many held for a prosperous, developed nation constituted the population problem.² The situation was dire, he argued, but there was a solution. Agriculture could be modernized to increase yields, industrialization would increase labour productivity and produce new, urban patterns of social life, but most importantly birth control would give people the means to bring parenthood 'under voluntary control'.³ Having babies 'by choice and not by chance' was linked not only to individual reproductive decision-making, but also to economic planning and the future prosperity of the nation. For Chandrasekhar, the population problem, and its solutions, were part of a broader process of national progress - progress towards 'civilized values', the 'conservation of life' and a democratic society.⁴ His speech was forceful, if not completely accepted by all present, and it succeeded in driving home the 'spectre of overpopulation'.⁵

Today, however, the spectre of overpopulation is nearly vanquished. The need for demographic disarmament has given way to the demographic dividend. The India that was, for Chandrasekhar, in a process of transformation has now "arrived",⁶ and population is not the teeming, starving masses of the twentieth century but instead the massive engine of a 'people driven transformation'.⁷ India's population is no longer a threat to be 'disarmed'; it is a dividend, a source of limitless human capital and a 'tremendous asset'.⁸ The story of this shift –

¹ Sripati Chandrasekhar, *Demographic Disarmament for India: A Plea for Family Planning* (Family Planning Association of India, 1951), p.1

² Ibid, p.3

³ Ibid, pp.21-34

⁴ Ibid, p.66

⁵ Lakshmi N. Menon, quoted in Saradindu Sanyal, 'Sripati Chandrasekhar' in Ashish Bose, P.B Jain, S.P Jain (eds.) *Studies in Demography* (Chapel Hill, 1973), p.513

⁶ Nandan Nilekani, *Imagining India: Ideas for the New Century* (Kindle ebook, Penguin Books, 2010)

⁷ Thomas L. Friedman, 'Foreward' in Nilekani, *Imagining India*, loc. 106

⁸ Nilekani, *Imagining India*, loc. 240

from demographic disarmament to demographic dividend – ranges across a broad intellectual and historical plain. Situated within the overlapping historiographies of demography, population control, modernization and development, and the history of twentieth century India, what unifies these two accounts, and provides the thread through these diverse narratives, is the idea of overpopulation.

The history of overpopulation is often presented as one of progress, of moving towards a democratic society, towards the recognition of individual reproductive rights, the realization of a demographic dividend or, in a more negative reading, towards the Malthusian doom so long predicted and now typically articulated in environmental terms.⁹ While scholarship has fleshed out, critiqued and complicated many aspects of this story it has also left other avenues less well trodden.¹⁰ Overpopulation discourse – and the research and policy-practices that accompanied it – could be said to have been profoundly undemocratic, elitist, classist, and blinkered by professional, cultural, social, economic and political assumptions and misunderstandings. However, family planning and the larger project of population control was also part of an attempt made by demographers and social scientists to make sense not only of population numbers, but also of social change. These attempts to understand and manipulate fertility, most often of the poor, were frequently misguided; demographers and social scientists, having hitched their professional and intellectual horse to the wagon of domestic and foreign policy, often found themselves conducting research that was scientifically compromised. As Mahmood Mamdani perceived in 1972, ‘the political and scientific reasons for the emphasis on overpopulation are, in fact, two sides of the same coin’.¹¹ Believing they knew that overpopulation would severely hamper economic growth and development, social scientists

⁹ See for example Nilekani, *Imagining India*; Sarah Hodges, ‘Review Article: Malthus is Forever: The Global Market for Population Control’ *Global Social Policy* 10:120 (2010), p.126

¹⁰ Significant texts include: Matthew Connelly, *Fatal Misconception: The Struggle to Control World Population*, (Kindle ebook, Belknap Press, 2008); Mohan Rao, *From Population Control to Reproductive Health: Malthusian Arithmetic* (New Delhi, 2004); Betsy Hartmann, *Reproductive Rights and Wrongs: The Global Bio-Politics of Population Control* (New York, 1995); Alison Bashford, *Global Population: History, Geopolitics and Life on Earth* (New York, 2014); Sanjam Ahluwalia, *Reproductive Restraints: Birth Control in India, 1877-1947* (Kindle ebook, University of Illinois Press, 2007); Sarah Hodges, *Contraception, Colonialism and Commerce: Birth Control in India 1920-1940* (Ashgate, 2008), ‘Governmentality, Population and Reproductive Family in Modern India’ *Economic and Political Weekly*, 39:11 (2004), pp.1157-1163; Saul E. Halfon, *The Cairo Consensus: Demographic Surveys, Women’s Empowerment and Regime Change in Population Policy* (Lanham, 2007); Matthew Connelly, ‘Population Control in India: Prologue to the Emergency Period’ *Population and Development Review* 32:4 (2006), pp.629-667; Rahul Nair, ‘The Construction of a ‘Population Problem’ in Colonial India, 1919-1947’ *The Journal of Imperial and Commonwealth History* 39:2 (2011), pp.227-247

not only created through their research the objective and scientific 'reality' of the population problem, they also believed they could provide solutions for it.

This thesis explores the methods by which demographers and social scientists came to know about overpopulation in twentieth century India. It argues that the research practices and data collected by demographers and social scientists are crucial to understanding how the population problem was framed, understood and acted on. By looking to the work of Indian demographers and research institutes, and well as the experiments conducted by the Foundations and the UN, it is clear that in addition to testing contraceptives, demographers were also testing how different theories of development and social change – such as extension education and mass communication – affected reproductive behaviour and population growth. Secondly, it argues that population control policies in India should be understood not as a predominantly western policies carried out in India, but as a set of national arguments and policies concerning population, economic growth, and national development that were made in the context of international concern – political, intellectual, professional – about population growth in general and India's population growth in particular. Following the work of 'population experts' - the group of social scientists and other intellectuals who carved out a professional and intellectual space through the population problem - like Sripati Chandrasekhar, this thesis traces the scientific, political and professional influences that shaped how overpopulation and population policy was conceived, measured, and made 'real'. By exploring how overpopulation was constructed through the practice of demographic research in twentieth century, this thesis revisits the story of overpopulation and population control in India from the perspective of how it was 'known', and explores how and why particular population policies were advocated, implemented and discarded in India between 1938 and 1974.

SOCIAL SCIENCE, RESEARCH AND NUMBERS

The history of population has typically been addressed in three ways: as the history of the international population control networks that emerged in the twentieth century, and what they reveal about international politics, policy-making, development projects and, typically, American power.¹² In a closely related body of literature, as the history of birth control

¹¹ Mahmood Mamdani, *The Myth of Population Control: Family, Caste and Class in an Indian Village* (New York, 1972), p.20

¹² See for example, Betsy Hartmann, *Reproductive Rights and Wrongs*; Matthew Connelly, *Fatal Misconception*, 'Seeing Beyond the State: The Population Control Movement and the Problem of Sovereignty' *Past & Present* 193 (2006), pp.197-233, 'Population Control is History: New Perspectives on the Campaign to Limit Population Growth', *Comparative Studies in History and Society* 45:1 (2003), pp.122-147; John F. Kantner, Andrew Kantner, *International Discord on Population and Development* (New York, 2006); Donald P. Warwick, *Bitter Pills: Population Policies and Their Implementation in Eight Developing Countries* (New York, 1982); Michael

techniques and policies, in which India features predominantly as a site of experimentation or as a laboratory.¹³ Finally, as national histories of population that have their primary focus on domestic rather than international factors. These accounts, in the Indian case, have tended to focus on the colonial period, charting the links between population, birth control and debates about social and moral reform, nationalism, and development.¹⁴

This thesis challenges these approaches by looking to the role of social science research and researchers in creating India's population problem, developing policy, and attempting to re-shape society by first understanding and then altering the norms and values governing fertility. As social science disciplines expanded in India in the post-war period, social scientists helped create a new vision of the population problem that was not the moral, cultural or nationalist population problem of the late nineteenth and early twentieth centuries, but was instead the 'averaged' population of the mid-twentieth century.¹⁵ Key in transforming population were the new forms of research developed in the mid-twentieth century, in particular the survey. Surveys asked questions thought un-askable, helped produce new categories of knowledge, and generated massive amounts of new data about the lives of ordinary Indians in the name of understanding, and then controlling, population growth. Turning lives into social facts was crucial for the defining project of twentieth century India: development planning. Surveys and population research as 'ways of knowing' were instrumental in constructing India as an overpopulated country in the twentieth century, as

Latham, *The Right Kind of Revolution: Modernization, Development and U.S Foreign Policy From the Cold War to the Present* (Kindle ebook, Cornell University Press, 2010); Oscar Harkavy, *Curbing Population Growth: An Insider's Guide to the Population Movement* (New York, 1995); John C. Caldwell, Pat Caldwell, *Limiting Population Growth and the Ford Foundation Contribution* (London, 1986); Alison Bashford, 'Population, Geopolitics and International Organizations in the Mid-Twentieth Century' *Journal of World History*, 19:3 (2008), pp.372-348

¹³ See for example: Andrea Tone, *Devices and Desires: A History of Contraceptives in America* (New York, 2001); Johanna Schoen, *Choice and Coercion: Birth Control, Sterilization and Abortion in Public Health and Welfare*, (Kindle ebook, University of North Carolina Press, 2005), ch. 4; Chikako Takeshita, *The Global Biopolitics of the IUD: How Science Constructs Contraceptive Users and Women's Bodies* (Kindle ebook, MIT Press, 2012); Lara V. Marks, *Sexual Chemistry: A History of the Contraceptive Pill* (New Haven, 2001); Ilana Löwy, 'Defusing the Population Bomb in the 1950s: Foam Tablets in India' *Studies in History and Philosophy of Biological and Biomedical Sciences* 43 (2012), pp.583-593

¹⁴ See for example, Sarah Hodges, 'Governmentality, Population and Reproductive Family in Modern India'; Sanjam Ahluwalia, *Reproductive Restraints*; Barbara Ramusack, 'Embattled Advocates: The Debate Over Birth Control in India, 1920-1940' *Journal of Women's History* 1:2 (1989), pp.34-64; Rahul Nair, 'The Construction of a 'Population Problem' in Colonial India, 1919-1947'

¹⁵ The 'averaged' population is discussed by Sarah Igo, *The Averaged American: Surveys, Citizens and the Making of a Mass Public* (Kindle ebook, Harvard University Press, 2007) and Mike Savage, *Identities and Social Change in Britain since 1940: The Politics of Method* (Oxford, 2010)

well as for providing the means to use and challenge this label by the 1970s. Behind the bland averages, or more typically, the fear inducing upward line on the graph, were researchers engaged in projects of gathering data, understanding their world, and representing it as fact - a process that often involved long and difficult journeys, sometimes dangerous conflicts, and varying degrees of co-operation. As Mahmood Mamdani argued in 1972, and Sarah Igo in 2008, ways of knowing – and what and how things are known – are critical for shaping public identities, political communities and ‘structuring encounters’ not just in the social world, but the international political world as well.¹⁶

Social statistics are not a twentieth century phenomenon. The collection of demographic data has occurred for nearly a millennium,¹⁷ but the nineteenth century creation of the disciplines of demography and vital statistics, as well as rising public interest in surveying, introduced new ways of thinking ‘statistically’ about populations and ushered in the period Ian Hacking calls ‘the avalanche of numbers’.¹⁸ The role of statistics, data, and research in nation building and the construction of identities has been extensively explored in histories of colonial knowledge-making and governance.¹⁹ In *Castes of Mind*, Nicholas Dirks uses an analysis of the techniques of social measurement to support his argument that caste is a modern phenomenon, resulting out of the ‘historical encounter’ of colonial rule.²⁰ Caste, as a category, was used to systematize social identity, community and organization. Dirks argues that the ‘career’ of caste as a category changed over time – starting as textual knowledge before being subjected to the ‘enumerative obsessions’ of colonial administrators and the census office in the nineteenth century.²¹ Through its classification of society (using techniques such as cartography, museums, taxation and the census), Dirks argues that Britain set in motion a transformation as powerful as those wrought by ‘military and economic imperialism’.²² This emerged in its strongest form in the second half of the nineteenth century as what he calls the

¹⁶ Sarah Igo, *The Averaged American*, loc.67; Mahmood Mamdani, *The Myth of Population Control*

¹⁷ Igo argues that the process of counting people for administrative purposes can be argued to extend as far back as the Domesday Book of 1086. Ibid, loc.72

¹⁸ Sarah Igo, *The Averaged American*, loc.72; Libby Schweber, Julia Adams, George Steinmetz *Disciplining Statistics: Demographic and Vital Statistics in France and England 1830-1885* (Durham, 2006)

¹⁹ See for example: Benedict Anderson *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London, 1991); Bernard Cohn, *An Anthropologist Among the Historians* (New Delhi, 1987), *Colonialism and Its Forms of Knowledge* (Princeton, 1996); Gyan Prakash, *Another Reason: Science and the Imagination of Modern India* (Princeton, 1999)

²⁰ Nicholas Dirks, *Castes of Mind: Colonialism and the Making of Modern India* (Princeton, 2001), p.5

²¹ Ibid, p.6

²² Ibid, p.9

'ethnographic state'.²³ Shifting away from an 'extractive' understanding of India (based on revenue and the relation between the state and the land), the colonial state turned its gaze to 'social classification and understanding'.²⁴ As Dirks explains, this was a transformation away from knowledge limited to the political economy, emphasizing instead knowledge about Indian society.²⁵

The 'enumerative obsessions' of census officials and administrators have also been widely explored. Arjun Appadurai argues that it was the urge to quantify, as much as the urge to classify, that shaped the nineteenth century 'logic' of the colonial regime.²⁶ Drawing from the work of Sudipta Kaviraj and Ian Hacking, he argues that 'state generated numbers' were put to a wide variety of uses, from setting tax levels to policy change.²⁷ Beyond their administrative utility, numbers also came to be a key part the colonial state's 'illusion of control', and were significant not only in how the colonial state justified its rule to itself, but also how it communicated with the metropole.²⁸ More than providing numerical grist for the policy mill, Appadurai argues that numbers and official statistics became a crucial part of disciplining both the apparatuses of the colonial state, as well the populations they wished to 'control and reform'.²⁹ Between 1870 and 1930 the practices of the colonial state ushered in a new era; that of the 'great All-India Census', which had enumerating people (rather than land or other resources) as its dominant project.³⁰ These censuses opened up the possibility for new questions and analyses of society. Increasingly, Appadurai argues, it was believed that what needed to be known about Indian society would 'become intelligible only by the detailed enumeration of the population in terms of caste'.³¹ Significantly, Appadurai links these processes with the 'politics of numbers' that persisted into the twentieth century – even as the importance of caste declined after 1931, the idea of 'politics as the contest of essentialized and enumerated communities' persisted.³²

As Appadurai has shown, in the twentieth century data and the 'politics of numbers' underwent a significant change. Sarah Igo, in her history of social surveys in twentieth century

²³ Ibid, p.43

²⁴ Ibid, pp.43-44

²⁵ Ibid, p.44

²⁶ Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis, 1996)

²⁷ Ibid, p.116

²⁸ Ibid, pp.117-119

²⁹ Ibid, p.120

³⁰ Ibid, p.126

³¹ Ibid, p.128

³² Ibid, p.131

America, argues that there was a dramatic shift in the ‘purposes and effects of gathering such data’ – efforts to collect data were expanded, surveys turned to recording attitudes, beliefs and behaviours, and new people were targeted for investigation.³³ Professionalization, innovations in survey design, and the needs of the war-time state all contributed to the rise of social surveys. Most significantly, she argues that over the twentieth century there was a significant change in the proper province of statistics – from statisticians, reformers, and the census bureau at the beginning of the century to the virtual ‘omnipresence’ of the ‘methods, findings and vocabularies’ of surveys and statistics by its end.³⁴ Putting social surveys to work, social scientists in the mid-twentieth century were, she argues, ‘covert nation-builders’, creating a picture of a collective society possible only because it was ‘radically simplified’.³⁵ Mike Savage, in his history of social science sampling in twentieth century Britain also stresses the significance of the social survey for explaining and exploring social change. Like Igo, he argues that social surveys played an important role in ‘nation-building’.³⁶ Social surveys, he argues, created a ‘distinctive politics of the abstracted individual’ in the post-war period, as surveys themselves became the ‘quintessential research arm of the modern state’.³⁷

In his history of the social sciences in India, Partha Chatterjee explores how liberal modernization theory, the prevailing framework in social science during the 1950s-1960s, was crucial to shaping them.³⁸ He argues that while governmental information of various kinds remained ‘by far the most important source of factual knowledge about information in society’, in the twentieth century there was a shift away from ‘textual interpretation’ and the four main colonial forms of knowledge – land revenue histories, the survey, the census, and the museum – towards empirical study.³⁹ Empirical study in the social sciences was overwhelmingly the province of sociologists and anthropologists who were concerned with researching ‘small communities in the process of change’.⁴⁰ Chatterjee explores the emerging economic theory of the early twentieth century. Like the sociologists, economists were also interested in the processes of change, though they were calling for a ‘comprehensive and subtle view of the economy as a whole’. Industrialization, national development, the elimination of poverty, as

³³ Sarah Igo, *The Averaged American*, loc.79

³⁴ Ibid, loc.142

³⁵ Ibid, loc.197

³⁶ Mike Savage, *Identities and Social Change in Britain*, p.viii

³⁷ Ibid, p.21

³⁸ Partha Chatterjee, ‘The Social Sciences in India’ in Theodore M. Porter and Dorothy Ross, *The Cambridge History of Science, Vol. 7: The Modern Social Sciences* (Cambridge, 2003), p.496

³⁹ Ibid, p.488

⁴⁰ Ibid, p.493

well as tariff protection and planned industrialization were the dominant forms of economic argument in inter-war and post-war period.⁴¹

Like Chatterjee, Timothy Mitchell argues for the importance of the economy in understanding twentieth century social scientific practice, particularly in the colonial context. He argues that the 1930s demarcated a period of significant change. Between 1930 and 1950 one of the most important intellectual and social changes of the twentieth century occurred – ‘the economy’ as a ‘self contained’ field emerged, and economics ‘claimed the task of representing what seemed to be the most real aspect of the social world’.⁴² The creation of the economy was most particularly important for the colonies. Appearing as the imperial order was beginning to collapse, old systems of ‘investment, management, production and trade’ that were reliant on colonial resources were replaced by national economies.⁴³ Older colonial forms of power and politics found new life in development, which offered old imperial powers the ‘form and formulas through which to...restructure their relationships with the colonies’ as well as providing new opportunities for emerging powers like the United States.⁴⁴ The new ‘regime of calculation’ did not produce more accurate data, but it did redistribute it, resulting in an increasing distance from ‘the field to the map’. The effect of this distance, Mitchell argues, was to raise new questions about accuracy, which became about the correspondence between data and reality.⁴⁵

What this literature shows is that from the nineteenth to the twentieth century there was a shift away from the dominant mode of research and data gathering, which had been dominated by the state and ethnography. In the twentieth century, the field of social research opened up to new professionals and also to lay interest. New research methodologies took people back into the field, and opened up new avenues for questioning and understanding society.

THE POPULATION PROBLEM IN TWENTIETH CENTURY

The history of overpopulation as a problem in the twentieth century generally conforms to a set narrative – that overpopulation emerged as a problem in the post-war period, identified and explained by American demographers who argued that population growth in the Third World was potentially dangerous and destabilizing.⁴⁶ Demographers argued that the spread of western science had led to lower death rates, prompting a high rate of population growth. They

⁴¹ Ibid, p.489

⁴² Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley, 2002), p.82

⁴³ Ibid, p.84

⁴⁴ Ibid, p.85

⁴⁵ Ibid, p.93

⁴⁶ Michael Latham, *The Right Kind of Revolution*, p.99

also argued, however, that modernization and rapid development could help create the conditions - through development of industry and agriculture, and inculcating the desire for smaller families - for lowering population growth and alleviating the population problem.⁴⁷ By the 1950s, demographers were advocating a more aggressive approach – the provision of contraceptives to the Third World to induce a fertility decline and therefore speed development.⁴⁸ This was, Dennis Hodgson argues, ‘as much a development strategy as a demographic perspective’ – one which was closely linked to the politics of the Cold War and American foreign policy.⁴⁹

In her survey of the field, Sarah Hodges outlines the broad trajectories of historiographical argument that have shaped how the history of population control and overpopulation discourse is now understood. She highlights the significance of the transition in the second half of the twentieth century from overpopulation as a predominantly national concern, ‘imagined and tackled from *within*’, to an international concern in the post-war period – tackled not within but ‘*across*’ nations.⁵⁰ It was during the post-war period she argues, that population control and overpopulation came to be seen as the ‘central objective’ of both nations and international organizations.⁵¹ Bracketing this shift is 1950s India on the one side and the 1994 Cairo Conference on the other. India in 1952 demarcates the beginning of the era of national policies of population control coupled with massive international efforts to control population growth, particularly in the Third World.⁵² The Cairo Conference, marking the end of the era in the 1990s, is argued to be emblematic of the shift away from population control towards reproductive rights and reproductive emancipation. The mid-point of this narrative, the 1974 World Population Conference, is presented as the moment of consolidation; population control had been established as the emblematic ‘technocratic fix’ for development, as well a key prong in Cold War strategies for the containment of communism.⁵³ India, in these accounts, has functioned as a site of ‘implementation’ – population control is presented as a history of policies ‘produced in the USA and Europe for global consumption’ - with India as an ideal test consumer.⁵⁴ Fitting into the ‘development regime’ India, it is argued, provided ‘democracy plus bureaucracy plus market’.⁵⁵ It was for the most part welcoming to

⁴⁷ Ibid

⁴⁸ Denis Hodgson, ‘Orthodoxy and Revisionism in American Demography’ *Population and Development Review*, 14:4 (1988), pp.545-546

⁴⁹ Ibid, pp.546-550

⁵⁰ Sarah Hodges, ‘Malthus is Forever’, p.120

⁵¹ Ibid

⁵² Ibid, p.121

⁵³ Ibid

⁵⁴ Ibid, p.125

⁵⁵ Ibid

international agencies and non-governmental organizations and provided a site for them to trial their interventions.

A number of authors have advanced and strengthened this narrative, which looks predominately at population control and overpopulation through the lens of policy. Betsy Hartmann's seminal polemic on population control, *Reproductive Rights and Wrongs*, argues forcefully that the basic premise of population control – the need to reduce women's fertility to slow worldwide population growth – is fundamentally wrong.⁵⁶ Following from arguments made in the inter-war period, and again in the 1970s, Hartmann contends that population growth is the symptom, not the cause, of 'problematic economic and social development'.⁵⁷ Taking aim at arguments that linked population growth to poor economic development, and at technocratic, top-down programs of family planning, Hartmann casts population control as an 'unfair and ineffective burden placed by rich countries upon the poor'.⁵⁸ Population, she argues, should be removed from the 'development lexicon' and instead replaced by 'concern for real people, real environments, not the fixed images of dark babies as bombs, women as wombs, statistical manipulations as absolute truth'.⁵⁹

Many of Hartmann's arguments – and particularly the emphasis on the coercive, compulsive and destructive aspects of population control – were fleshed out by Matthew Connelly in *Fatal Misconception*.⁶⁰ Connelly's arguments redirect attention away from the role of national governments towards the power and influence wielded by international organizations. In his account, international and non-governmental agencies, scientists and activists 'organized across borders to press for common norms of reproductive behaviour'.⁶¹ In doing so, they 'spearheaded a worldwide campaign to reduce fertility and created a new kind of global governance' – this allowed, he argues, the group of international 'population controllers' to attempt to control the fertility of the world 'without having to answer to anyone in particular'.⁶² It was the idea of controlling world population that was a modern phenomenon, Connelly argues, born out of observed trends in demographic and vital statistics married to concerns about race, epidemic disease, migration and eugenic decline.⁶³ From the mid-1960s

⁵⁶ Betsy Hartmann, *Reproductive Rights and Wrongs*, pp.xix-xx

⁵⁷ Ibid, p.xx

⁵⁸ Ibid; Sarah Hodges, 'Malthus is Forever', p.121

⁵⁹ Betsy Hartmann, *Reproductive Rights and Wrongs*, p.305

⁶⁰ Sarah Hodges, 'Malthus is Forever', p.122

⁶¹ Matthew Connelly, *Fatal Misconception*, loc. 130

⁶² Ibid, loc. 139

⁶³ Ibid, loc. 149

until the 1980s population control functioned as both an 'arena and an agenda' – an intellectual and political space where 'feminists, environmentalists and a host of others...together tried to change the way people considered their sexuality, their families, their place in the world and their collective future'.⁶⁴

Connelly's approach, Hodges argues, goes too far in its assessment of the power and influence of the international population control movement.⁶⁵ The work of Mohan Rao, Sanjam Ahluwalia, Sarah Hodges, and Rahul Nair has explored how, in both the pre – and post-colonial and post-war periods, ideas about overpopulation and birth control were the province of the state, as well as of private citizens and organizations within India.⁶⁶ While intellectuals, population control and birth control activists, and Indian nationalists operated within an international framework, they were not dictated to by it – ideas about population were Indian as much as they were American or European. Ahluwalia, Hodges and Nair trace the development of birth control and overpopulation in colonial India, while Mohan Rao starts from the 1994 Cairo Conference and looks back over the second half of the twentieth century. His central question and concern is to explore why and how India's public health infrastructure came to be 'suborned to family planning' by tracing the ideological development of population control and its life in policy-making in India through the family planning program.⁶⁷ Rao's account provides a valuable counter-weight to Connelly's. While he acknowledges the influence of the international population movement – both in its ideas and its primary actors – he grounds his analysis in the history of Indian policy-making and family planning. The international population control movement undoubtedly mobilized extensive financial, political and economic resources to pursue its agenda, but it was one that was enthusiastically received by many colonial and postcolonial states who were eager to adopt these ideas and programs.⁶⁸

SOCIAL SCIENCE AND THE POPULATION PROBLEM

The importance of the social sciences to many of the defining global projects of the twentieth century – in particular development and modernization – has informed much of the scholarship on how population growth and national and international development projects were conceptualized and carried out.⁶⁹ That science could be turned on social problems such as

⁶⁴ Ibid

⁶⁵ Sarah Hodges, 'Malthus is Forever', p.122

⁶⁶ Sanjam Ahluwalia, *Reproductive Restraints*; Sarah Hodges, *Contraception, Colonialism and Commerce*; Mohan Rao, *From Population Control to Reproductive Health*

⁶⁷ Mohan Rao, *From Population Control to Reproductive Health*, pp.14-17; Sarah Hodges, 'Malthus is Forever', p.123

⁶⁸ Sarah Hodges, 'Malthus is Forever', p.122

⁶⁹ See for example Matthew Connelly, *Fatal Misconception*; Nils Gilman, *Mandarins of the Future: Modernization in Cold War America* (Baltimore, 2003); Michael Latham, *Modernization as*

poverty or high fertility and provide solutions was one of the defining tenants of liberalism – particularly American liberalism – in the twentieth century.⁷⁰ This belief permeated attempts to address social ills, not only in America but around the world, through projects of development and modernization.⁷¹ As Alice O’Conner argues, ‘for well over a century, liberal social investigators have scrutinized poor people in the hopes of creating a knowledge base for informed social action’.⁷²

Demography and demographers are often cast as the ‘handmaidens’ of population control. Professional demographers are argued to have played a ‘critical role’ by ‘tailoring their theories to provide a respectable justification for questionable policy intervention’.⁷³ Firmly established within the wider ‘population establishment’, demographers and other social scientists are argued to have been key players in creating legitimacy for population control and a scientific backing for the political project of family planning.⁷⁴ This history is closely tied to the narrative of population control and the population problem that takes the post-war period as the moment of the emergence of the population problem, closely linking demography to American foreign policy, and arguing that the family planning programmes supported by demographers provided a solution to Third World development and the population problem.⁷⁵

Taking stock of the field, Susan Greenhalgh has reviewed the historiographical shifts that have emerged within and about the discipline of demography since the 1980s. She attributes the ‘conceptual and theoretical limitations of the field’ – its ahistoricism, eurocentrism, and strong ties to modernization theory and demographic transition theory – to the close association between demography as an intellectual and professional field and the foreign policy needs and aims of the United States during the Cold War.⁷⁶ These ties, she argues, linked demography and demographers to the ‘preoccupation of US policy-makers’ with family

Ideology: American Social Science as “Nation Building” in the Kennedy Era (Chapel Hill, 2000), *The Right Kind of Revolution*; Daniel Immerwahr, *Thinking Small: The United States and the Lure of Community Development* (Kindle ebook, Harvard University Press, 2015)

⁷⁰ Alice O’Conner, *Poverty Knowledge: Social Science, Social Knowledge and the Poor in Twentieth-Century U.S History* (Princeton, 2001), p.1

⁷¹ See for example, Nils Gilman, *Mandarins of the Future*; Michael Latham, *Modernization as Ideology, The Right Kind of Revolution*; Daniel Immerwahr, *Thinking Small*

⁷² Alice O’Conner, *Poverty Knowledge*, p.2

⁷³ Seamus Grimes, ‘From Population Control to ‘Reproductive Rights’: Ideological Influences on Population Policy’ *Third World Quarterly* 19:3 (1998), p.375

⁷⁴ Matthew Connelly, *Fatal Misconception*, loc. 197

⁷⁵ Susan Greenhalgh, ‘The Social Construction of Population Science: An Intellectual, Institutional and Political History of Twentieth Century Demography’ *Comparative Studies in Society and History*, 38:1 (1996), p.28

⁷⁶ Ibid

planning as a 'solution' to the population problem.⁷⁷ The close connections were responsible for the 'preoccupation with...programmatic factors', the neglect of personal preferences and of socioeconomic context, as well the 'perverse persistence of demographic transition theory' which was more closely aligned to policy making than 'scholarly inquiry'.⁷⁸ Greenhalgh notes that these accounts – like those of the population control movement more broadly – have illustrated the multiple impacts of policy and political developments on the 'evolution of demographic thought'.⁷⁹

Work on demography and population control, as well as broader accounts of the growth of environmentalism, and of modernization and development, have all helped to trace the outlines of the intellectual, political, and professional space that demographers, social scientists, activists and ideas (for example about economic growth, development, resources, food, and land) occupied. Recent work has begun to explore how important the projects of research and data-gathering were to this process. To quote Mamdani, 'the method of analysis in large part determines the results that follow. As important as "knowing" is the method one uses to "know"'.⁸⁰ Greenhalgh has argued for the need to attend to the practice of science – including demography – as a social activity, drawing attention to three main problems in the historiography of demography. The first problem is that of the 'essentialization of demographic science'. Casting demography as a science with a 'fixed nature', whether that is as a "policy science" or something else, is wrong – instead, it must be recognized that science has no essential nature, 'it is what people make it'.⁸¹ Her second critique is that insufficient attention has been paid to the practices that 'demographers themselves have undertaken in constructing their discipline'.⁸² Her third critique draws attention to the need to resist creating narratives of 'demographic exceptionalism'; demographers, she argues, were no more ignorant, unprincipled or 'susceptible to politicization' than other social scientists.⁸³

Explorations of the creation of 'population' as a product of demographic research have cast new light on the history of population and demography, as well as on how social science works to construct the reality it purports to be studying. The growing emphasis on the 'localities' in which evidence is collected and knowledge created is now receiving more attention – once confined to the laboratory, historians are returning to the other sites of knowledge production in the twentieth century: the office, and the field. Research conducted in

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ Mahmood Mamdani, *The Myth of Population Control*, p.29

⁸¹ Ibid

⁸² Ibid

⁸³ Ibid

the field necessarily involved interaction with the subject of study – the general public – who, as Corinna Unger and Heinrich Hartmann highlight, ‘often understand much more about the methodology of the surveys and their underlying assumptions than statisticians suspect’.⁸⁴ Saul Halfon has convincingly shown that survey research and ‘associated practices’ are extremely effective at stripping themselves of politics – and in their depoliticized form became increasingly important for ‘structuring the institutional space of population policy’.⁸⁵ In doing this surveys – and particularly the Knowledge, Attitude and Practice (KAP) survey – helped to ‘produce the political space within which policy functions’.⁸⁶ While surveys were claimed to be objective and scientific, they nevertheless constituted a ‘crucial arena’ for the contestation of population policy.⁸⁷

The international creation of population – as a concept and as a ‘science’ – has also been the subject of renewed investigation. Alison Bashford’s *Global Population* traces the intellectual history of population and the population problem, highlighting not only its global nature, but also its conceptual scope. Bashford shows that post-war ideas about population did not constitute a radical break from their pre-war counterparts. Population – ‘as much about geopolitics as it was about bio-politics’ – aligned itself with a multiplicity of concerns including land, ecology, race, politics, health, and immigration that formed the broader intellectual backdrop of the twentieth century.⁸⁸ She illustrates the centrality of ideology of all kinds – demography was not a ‘value free’ science, but instead was influenced by a wide range of ideas and concerns, which were instrumental in shaping how demographic ideas developed. Population was not only conceptually broad, encompassing sex and reproduction as well as land, food and economics, it also raised questions about politics and territory, of ‘colonization, migration and ultimately sovereignty’.⁸⁹ Questioning and interrogating the links between population and international health discourses, she argues that rights – often portrayed as having been ‘realized’ or attained at the end of the population control narrative – instead ‘became internationally viable not into a discursive void but in, around, and through all kinds of other expert investments in, and constructions of, population’.⁹⁰

⁸⁴ Ibid, p.5

⁸⁵ Saul Halfon, *The Cairo Consensus*, p.9

⁸⁶ Ibid

⁸⁷ Ibid, p.105; Heinrich Hartmann has explored this in the context of KAP surveys conducted in Turkey between 1960-1980, in ‘A Twofold Discovery of Population: Assessing the Turkish Population by its “Knowledge, Attitudes and Practices”, 1962-1980 in Heinrich Hartmann, Corinna Unger (eds.) *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century* (New York, 2014)

⁸⁸ Alison Bashford, *Global Population*, pp.3-5

⁸⁹ Ibid, p.3

⁹⁰ Ibid, pp.20-21

POPULATION IN INDIA

In the history of population control, population is taken as being crucial to the development of modern India. The impact of the population on the economy and development programs, the effect of demographic changes in the wake of partition, the pressure of the large population and its outcome on food production and resources, are presented as dominant concerns and highly influential factors shaping the population policies of the period. However, while population features in the background of general narratives of twentieth century India, government actions or policies that directly addressed or impacted population are rarely given serious mention aside from discussions of the Emergency.⁹¹ When population is discussed, for example as in Barbara and Thomas Metcalf's *A Concise History of Modern India*, mention is made of the longstanding 'government priority' to control population, but it is not further discussed other than through reference to the 'family planning slogans plastered on billboards'.⁹² They also reproduce the main argument of the period, that population growth needed to be controlled, silencing the debates over the meaning of overpopulation, its relationship to development, the economy, and democracy that occurred particularly between the late 1930s to the late 1950s, and again in the late 1960s and early 1970s. Highlighting the Emergency as an aberrant episode of compulsory sterilization, the long and complex relationship between population, democracy, individual rights and development in India is bypassed. Population control is presented both as the unproblematic policy outcome of 'problematic growth', and as having been 'defeated' by the post-Emergency triumph of democracy. These accounts of population control fit into the more general outlines of histories of twentieth century India that stress the modernizing projects of the state. The history of post-Independence India, and particularly of the 'Nehruvian era' between the 1950s and the early 1960s is often argued to have been one of 'profound modernism'. Jawaharlal Nehru, India's first Prime Minister, is portrayed as dedicated to science, part of a 'technocratic style of politics', and with a 'zeal for high impact modernist projects'.⁹³

Recent work has begun to challenge these narratives with important implications for the study of population in India. Daniel Immerwahr argues that historians of modern India have interpreted the post-war, post-Independence projects of modernization as an 'epistemology' of the state. Modern independent India is thus portrayed as being part of an epic, and epistemic, clash between 'native thought systems and imperial rationality' – imperial rationality, having washed away other forms of knowing and understanding the world, was incorporated into the

⁹¹ See for example: Ramachandra Guha, *India After Gandhi: The History of the World's Largest Democracy*, (London, 2007); Sunil Khilnani, *The Idea of India* (New York, 2004); Nilekani, *Imagining India*

⁹² Barbara Metcalf, Thomas Metcalf, *A Concise History of Modern India* (Cambridge, 2012), pp.256-257

⁹³ Daniel Immerwahr, *Thinking Small*, loc.1332

postcolonial state.⁹⁴ As Immerwahr notes, this account glosses over many of the factors that shaped the build-up to Independence, not only the relationship between Nehru and Gandhi, but also the vigorous contestation over how India should be conceived and administered, and what the aims, goals and guiding rationale of the state should be. In particular, Immerwahr argues that alternative forms of development, largely erased in the grand modernizing narratives of the twentieth century, need to be acknowledged. In India, one such strategy – community development – counted among its supporters the stars of standard modernization narratives: Jawaharlal Nehru and the Ford Foundation's Douglas Enslinger. The importance of local development projects, their support from the state, and eventual outcome as 'neither utopia or panacea' lays the foundations for re-examining the relationship between overpopulation and development discourses in India. Recent work on the 'everyday state' has also turned to these questions. As Taylor Sherman, William Gould and Sarah Ansari argue, the pre- and post-independence period was one of marked continuity in terms of the discourses of development, nationalist movement, and the relationship between citizens and the State.⁹⁵ They call for a new periodization of the post-colonial period that sees the 1930-1960s as distinct, and the period after the 1960s as the eruption of tensions accumulated during the 'nation-building phase'.⁹⁶

The relationship between the social sciences in general, and of demography in particular, in the post-colonial state has been revisited by Hidam Premananda and Partha Chatterjee. Hidam Premananda has explored many of the arguments about the development of demography as a professional discipline made by Halfon and Greenhalgh in the Indian context. Demographic practice, he argues, is key to understanding the official family planning policies of the Government of India. Developing the arguments of scholars of colonial enumeration, Premananda argues that demographic practices 'constructed certain demographic "realities" of reproductive behaviour', realities that are significant to the 'construction of 'population' as a thinkable, imaginable, calculable, and manageable category in administrative discourse and practice'.⁹⁷ He highlights the importance of demographic data and knowledge, and in particular the importance of the demographic survey for producing them.⁹⁸ The field survey, he argues, was a crucial element of the creation of 'various administrative possibilities of the population

⁹⁴ Ibid

⁹⁵ Taylor C. Sherman, William Gould, Sarah Ansari, 'From Subjects to Citizens: Society and the Everyday State in India and Pakistan, 1947 -1970' *Modern Asian Studies* 45:1 (2011), pp.3-4

⁹⁶ Taylor C. Sherman, William Gould, Sarah Ansari, 'From Subjects to Citizens', p.3; Benjamin Zachariah, *Developing India: An Intellectual and Social History, 1930-1950* (New Delhi, 2005)

⁹⁷ Hidam Premananda, 'Population Control in India: Politics of a Science Called 'Demography'', in Nivedita Menon, Aditya Nigam, Sanjay Palshikar (eds.) *Critical Studies in Politics: Exploring Sites, Selves, Power* (New Delhi, 2014), p.339

⁹⁸ Ibid

program’ – and influenced the ‘welfare, outlook and politics in India’.⁹⁹ He nevertheless follows the general narrative laid down in population control accounts. It is the Princeton-based demographers Frank Notestein and Kingsley Davis that he identifies as having early significance in developing the discipline of demography, and it was their work, he argues, that resulted in population control being made ‘part of the modernization process’.¹⁰⁰

While Premananda stresses the importance of field studies and research, as well as the importance of the small family norm in demographic practice and policy-making, he does not situate demography within its wider social-science setting, a setting in which the return to empiricism and particularly to the field study was becoming increasingly important by the 1950s. That the Indian state, and social and political sciences in the twentieth century were engaged in projects of development and modernization guided by liberal modernization theory is relatively uncontested. However, new research focusing on the empirical practices of social scientists, on the ‘everyday state’, and on social experiments is illustrating that the period between the late 1930s and the 1970s needs to be thought of as highly experimental, not only in terms of infrastructure and the natural sciences, but also in terms of social and economic experimentation.

Looking to the recent work by Premananda, Unger, Heinrich and Immerwahr it is clear that a new picture of the relationship between field studies and data, and arguments about the social sciences, the economy, development and the state are emerging. This work has suggested that the narrative of the ‘modern Indian state’ – in which demography played a constitutive role – should not be dated to 1951-52 but to the 1930s. Population data and ideas about development are inextricably linked, but as Bashford, Gould, Ansari, Ahluwalia and others have argued, these links emerge in the inter-war period which was replete with a diversity and depth of thought about population and its relationship to a wide range of concerns, including the processes of planning for an independent India. Planners, including figures like Radhakamal Mukerjee – sociologist, economist, and ecologist – who also chaired the National Planning Committee’s (NPC) Sub-Committee on Population in 1938 were part of a wide-ranging and international network of intellectuals and drew on arguments about population and development that were complex, varied and existed independent of American demographers and prior to 1951. Twentieth century India is often portrayed as a period of modernization and the pursuit of large infrastructure projects and experimentation in the natural sciences. We forget that it was also a period of extensive social, economic and agricultural experimentation in different forms – some of it was claimed ‘scientific’ and some of it took the form of ‘policy experiments’. Premananda and Immerwahr have shown how widespread these projects were and how competing visions of modernization were invoked – India’s dams may have been

⁹⁹ Ibid

¹⁰⁰ Ibid, p.341

‘temples of the modern age’, but her villages were equally sites of intensive social experimentation and development projects.

THE THESIS

This thesis makes three main arguments by following the paths of Indian population experts and professionals – the researchers, intellectuals, and policy-makers – who, alongside their international colleagues, acted to understand and shape the way India’s population was both conceived and acted upon. In particular, it follows the work of Sripati Chandrasekhar, whose ideas and career reflect the many intellectual and political factors shaping population control in India in the twentieth century. His legacy, and portrayal in histories of population control, is also indicative of the broader trends emphasizing the importance of contraception that have dominated the field, and demonstrates where new lines of inquiry are needed. Chandrasekhar, despite being a sociologist, demographer, prolific author and elected official who as Minister of Health and Family Planning oversaw the massive expansion of India’s family planning program and of programs to instil the small family norm across society in the late 1960s, is most frequently remembered for his vocal and longstanding support for sterilization.¹⁰¹

Chandrasekhar’s support for sterilization, and for the Emergency, has served to link him almost exclusively to arguments about authoritarianism, coercion, compulsion and more broadly to the Emergency-inflected narratives of family planning and population policy in India. As Ian Dowbiggin notes, this image ‘did not end at India’s borders’ – Chandrasekhar was held up internationally as a proponent of sterilization to the extent that, as Dowbiggin argues, he is seen as have done more than any other single individual to ‘popularize sterilization as a birth control method’.¹⁰² However, Chandrasekhar was far more than an advocate for sterilization. His career epitomizes the varied and complex nature of population thought, research and policy-making that shaped population control in twentieth century India. While he was undoubtedly an advocate for sterilization and supported compulsory sterilization during the Emergency, that this tends to dominate his inclusion in narratives about family planning and population control is indicative of the influence of sterilization and the Emergency on historical accounts of population control in India overall. Chandrasekhar’s ideas and career path – ranging from Director of demographic research at UNESCO to Minister of Health and Family Planning for India – indicate the intellectual, professional and political breadth of population control and demography. Furthermore, his ideas about population, policy, birth control and social change were, far from being solely linked to authoritarianism, steeped in arguments

¹⁰¹ See for example, Ian Dowbiggin, *The Sterilization Movement and Global Fertility in the Twentieth Century* (Kindle ebook, Oxford University Press, 2008); Matthew Connelly, *Fatal Misconception*; James G. Chadney, ‘Family Planning: India’s Achilles Heel?’ *Journal of Asian and African Studies*, 22:3-4 (1987), pp.218-231

¹⁰² Ian Dowbiggin, *The Sterilization Movement and Global Fertility*, loc.143

about national development, individual rights and the biological emancipation of women. His position on sterilization – developed in large measure through his work with the 1951 Census Commissioner R.A Gopalaswami – was only one aspect of his larger vision of population policy. He contrasted arguments for the need for compulsion with claims about individual freedom and rights; contraceptive ‘solutions’ to the population problem with a wide-reaching plan to producing long-lasting social change through targeting behaviours and social norms. Dowbiggin credits Chandrasekhar with doing more than any other person to advance sterilization, but he also did a great deal – arguably more than any other Minister of Health in India – to define and develop a project of social engineering as well.

A single person’s career and ideas, while an inadequate mirror for India’s population control policies as a whole, nevertheless highlights where current accounts of this history have tended to wash out arguments about social change, alternate arguments about development, and debates over rights and freedoms in favour of a narrative that focuses on international actors, authoritarian tendencies, and contraceptive technologies.¹⁰³ In these narratives the Indian state is largely passive, until the Emergency, when it emerges as an authoritarian presence coercing and compelling people to be sterilized. While the international population control movement was undeniably powerful, and while the international intellectual and professional context shaped how population was understood and acted on, the state was also a key player prior to the Emergency. Looking again at how and why the state acted prior to the Emergency through individuals like Chandrasekhar reveals not only that the authoritarian tendencies typically associated to the Emergency had their origins in the practices and policies of the 1960s¹⁰⁴ it also reveals, as Daniel Immerwahr has shown for community development, the many strategies of development, planning and social change that were being trialled and tested which were linked not to the ‘high modernism’ of Nehruvian science but to the village-oriented ethos of Gandhian development.

This thesis argues first that population control in twentieth century India should be seen as a predominantly national policy, carried out in the context of intense international interest in, and action on, population growth in developing countries. Framing population

¹⁰³ This is most clear in accounts that dismiss the 1950s as a period of ‘tentative’ policy-making, and stress the significance of the 1960s when the IUCD is introduced and when centralized Government control is strongly advocated. See for example: James Chadney, ‘Family Planning: India’s Achilles Heel’; Chikako Takeshita, *The Global Biopolitics of the IUD*; Rebecca Williams, ‘Storming the Citadels of Poverty: Family Planning Under the Emergency in India, 1975-1977’ *The Journal of Asian Studies* 73:2 (2014), pp.471-492. On the importance of recognizing arguments about rights in the wider context of family planning and population control see Alison Bashford, *Global Population*, ch.12.

¹⁰⁴ Matthew Connelly, ‘Population Control in India: Prologue to the Emergency Period’, pp.629-627

control around the nation challenges the standard population control narratives that prioritize international and American influence in the post-war period, and builds on recent work that has called for a new chronology and framing in history of both population control and twentieth century India. Following the arguments of Gould, Ansari, Sherman and Bashford, bridging the 'Independence gap' reveals not rupture but striking continuity in how population was perceived as a problem and how the state should act to address it. These continuities range from how the problem was understood – particularly in economic arguments about development, and how the state could know about, and tackle it – through centralized planning, policy-making and state-led projects of data collection, but also through the activities of research institutes, individual researchers and non-governmental organizations working within India.

Most accounts of population control in India focus on the relationship between policy-making and contraception – particularly sterilization – culminating in the Emergency. However, building on the work of Marika Vicziany, Matthew Connelly, and Rebecca Williams, this thesis argues it is necessary to de-centre the Emergency by showing how competing narratives of development, family planning, freedom and coercion were articulated in the context of creating social change. These narratives had their origins in the research conducted in the late 1950s and early 1960s, and arguably reached their apex not during the Emergency but in the late 1960s. The appointment of Sripati Chandrasekhar to Minister of Health and Family Planning in 1967 initiated a period of intensive family planning activity by the state. Chandrasekhar argued for compulsory sterilization but also, significantly, for a massive project of social engineering to change social norms about family size. I argue that narratives about sterilization specifically, and contraception in general, have overshadowed the importance of behavioural policies aimed to change family size which were a key part of the family planning policies of the state. Attitudes and public opinion on family planning were key research interests in the 1950s, and behavioural approaches appeared to provide an alternative to centralized clinic-based family planning in the early 1960s. Looking at how behaviours were studied, understood and written into and out of the family planning policies therefore broadens our understanding of population control in India and challenges the Emergency-driven narratives that pass over the many variations of family planning and population control that were implemented prior to the Emergency.

This thesis argues thirdly that data and research are key to understanding how the population problem was understood and acted on in India. Debates over population data - how to collect it, where to collect it, and what was most useful for policy – emerged in the interwar period and persisted throughout the twentieth century. Early debates centred on what counted as the correct unit of measurement for population, and whether there was a single population problem or many different ones, as well as if these were local, regional or national in scope. Debates also addressed what data was most useful for policy-making, spanning both the state-

run mechanisms for data collection (including the census and the national sample survey) as well as non-state projects run by both research organizations (from the UN to small institutes) and individual researchers. Paying attention to debates about data and research reveals how highly politicized these data and research were, and how varied understandings of the population problem were. This is significant because not only does research and data present itself as depoliticized, the population problem is itself presented as being a single monolithic problem rather than as a combination of problems that varied at different times and in different locations.

Chapter One examines two official inquiries into population data: the National Planning Commission's Sub-Committee on Population, and the Government of India Population Data Committee; and two methods of data collection: the census and the National Sample Survey (NSS). It argues that the definitions of overpopulation, and the sources of data on population, were highly contested during this period. While recent work has assessed the diverse intellectual arguments about population in the inter-war period, this chapter explores how, looking at new and different ways to collect population data, social scientists and policy-makers engaged in debates about not only what the population problem was and how to measure it, but where it was (national or regional) and whether it could be thought of as a single problem.

Chapter two argues that population became constructed as a national problem in the late 1940s and early 1950s. Looking at the rising importance of new methods of data collection like the National Sample Survey, and the growing importance of field research carried out by demographers, this chapter explores the links between population, national planning, and family planning that were established in the build-up to the First Five Year Plan.

Chapter three argues that the research supported and pursued during the Second Five Year Plan period, particularly demographic research, is a significant factor accounting for the rising importance placed on motivation and attitudes in the family planning programme. The experiments conducted during the Second Five Year Plan, the networks of governmental and international support for research, and the professional networks established during this period had a significant impact, laying the groundwork for policies pursued from the 1960s onwards. Key to this was the rising importance of the field study. Exploring the work conducted in the Khanna Study, by the Indian Institute of Population Studies, and by the Gokhale Institute of Politics and Economics, this chapter links the rising importance of new research methodologies with the institutionalization of demography and rising policy importance of demographic expertise and data.

Research, family planning policy and broader ideas about development faced a number of challenges in the early 1960s, demonstrated through the numerous changes in family planning policy pursued between 1960-1965. This period is typically portrayed as one where family planning policy is given greater emphasis from the Government of India, and

technological and technocratic approaches are given freer reign. Looking to the shifts from the clinic approach to the extension education approach, and from the extension approach to the Intrauterine contraceptive device (IUCD) approach, chapter four challenges this interpretation and explores how research, implementation, and ideas about development influenced family planning in India during the early 1960s. It argues that the shift to extension education, and its abandonment soon after, is part of larger shift away from a community-based developmental model.

In 1967, Sripati Chandrasekhar was made Minister of Health and Family Planning. Chapter five explores how, between 1967-1970, India pursued both a policy of social engineering in an attempt to inculcate the small family norm, as well as initiating a new forms of family planning administration and contraceptive distribution, first through channels of commercial distribution and later through mass camps. Exploring how the Government of India and the Foundations sought to spread the small family norm through projects of mass communication as well as through commercial contraceptive distribution, it argues that this reflected wider, longstanding ideas about social change and social planning that had been influential in demography since the 1950s.

Chapter six explores the rise of critical backlash to population control, culminating in the 1974 World Population Conference. Development, modernization, the economy, and population policies faced increasing criticism in this period. As demography faced challenges from within and without, arguments about the nature of population change, the relationship between demographic theory and policy, and the form that population policies should take (i.e. voluntary or coercive) were hotly debated. Researchers who, like Mahmood Mamdani, revisited and challenged the foundational studies conducted in the 1950s, were part of a growing critique that questioned the basis for population policies of fertility control. These critiques came to a head at the 1974 World Population Conference which saw an alliance of Third World countries challenging the developmental models of the preceding two decades, and at which India famously proclaimed 'development is the best contraceptive'. This chapter highlights how, by the mid-1970s, the consensus and confidence of demographers had evaporated into the multiple and contested intellectual, political and economic uncertainty of the 1970s.

Research for this thesis was conducted in archives in the University of Toledo, at the Rockefeller Archive Center¹⁰⁵, the World Health Organization archive, the Nehru Memorial Museum Library, the National Institute of Health and Family Welfare Library, the British Library and the London School of Economics Library. I have made extensive use of the archive held at the University of Toledo Ward M. Canaday Center, which holds the collected papers of Sripati Chandrasekhar. This collection has been relatively overlooked, and provides an

¹⁰⁵ Which now also holds the records of the Ford Foundation

extensive and eclectic collection of documents giving insight into Chandrasekhar's work, politics and views on population, demography and family planning in India, as well as into the administration of the population policies undertaken by the State. A prolific author, Chandrasekhar left an extensive collection of both published and unpublished work, of which I only scratched the surface. I regret that owing to the constraints of time and finances, I was unable to visit or access many of the archives and collections that I would have liked to.

CHAPTER ONE: THE CENSUS, DATA AND THE POPULATION PROBLEM, 1931-1941

Over the course of the early twentieth century, understandings of the population problem went through several shifts – moving from population ‘understood as natural history’, to overpopulation tied to economic and social development.¹ This changing conception is linked not only to the ‘global emergence’ of the population problem in the mid-twentieth century², but to new data gathering practices carried out in India. This chapter looks at how methods of data collection and debates over the sources of data – as played out in the census, the National Sample Survey, the Government of India Population Data Committee and the National Planning Committee’s Sub-Committee on Population – were instrumental in re-shaping the population problem, linking it not only to development, but to new questions about where population was, how to measure it, and whether it was a single problem or many.

It has been argued that the population problem in India is properly a problem of the mid-twentieth century.³ However, while the population growth that occurred in the post-war period was undoubtedly significant, both in terms of absolute numbers, as well as in the national and international responses to it, the population problem as a set of concerns and questions had an earlier origin. Arguments about population in the late nineteenth and early twentieth centuries included under-population as much as overpopulation, as well as a wide array of concerns about not just reproduction, but agriculture, economic development, moral and social welfare, health, and political stability.⁴ Historians of population in pre-independence India have tended to look at how population featured in the discourses of the colonial state and anti-colonial nationalists, as well as being deployed by birth control activists.⁵ In making these arguments, the census has played a major role as both an indicator of the growing population problem, as the source of demographic data deployed by the colonial government and birth control activists, and as an indication of how the idea of the ‘population problem’ changed over

¹ Sarah Hodges, ‘Governmentality, Population and Reproductive Family in Modern India’, p.1157

² Ibid

³ Burton Stein, David Arnold (eds.), *History of India* (Second Edition, Oxford, 2010), p.366

⁴ Alison Bashford, ‘World Population and Australian Land: Demography and Sovereignty in the Twentieth Century’ *Australian Historical Studies*, 38:130 (2008), p.213; Sarah Hodges, ‘Governmentality, Population and Reproductive Family in Modern India’

⁵ See for example: Sanjam Ahluwalia, *Reproductive Restraints*; Barbara Ramusack, ‘Embattled Advocates’; Sarah Hodges, *Contraception, Colonialism and Commerce*; Mohan Rao, *From Population Control to Reproductive Health*

time. Sanjam Ahluwalia argues that the creation of overpopulation as a problem in India resulted primarily from the arguments of male middle-class birth control advocates who linked rising population numbers to arguments that a large population was 'incommensurate with the national goals of a fit and healthy citizenry'.⁶ This established the 'deployment of demographic numbers' as a central focus of debates on population, helping create overpopulation as a national problem linked to health, reproduction and population size.⁷

While Ahluwalia focuses on the links between demographic data, the census and the birth control movement in interwar India, both David Arnold and Rahul Nair outline the importance of the colonial administration – particularly the public health administration – in creating the population problem. David Arnold argues that in the interwar period population underwent a shift, switching from the 'population question' of the 1920s to the 'population problem' of the 1930s.⁸ Key to this shift was the 1931 census, which he argues provided a 'benchmark', both for colonial officials and the middle class.⁹ Debates over the population problem were largely informed by the census, which was often more influential in shaping thinking about population in India than official policies.¹⁰ Arnold links these debates to the growing support for birth control in this period, concluding that even as birth control was increasingly recognized as a way to 'solve' to the population problem, the colonial government was cautious about linking advocacy for birth control closely to the state, waiting instead for 'educated public opinion' to 'take the lead'.¹¹

Like Arnold, Rahul Nair stresses the importance of the census and of colonial officials in what he terms the 'framing' of the population problem in the interwar period. It was the concern of British public health officials, he argues, and their worries over the 'future direction and place of public health' in a political landscape rapidly being altered by constitutional devolution of power, that made possible the construction of the population problem.¹² Nair argues that to understand how population came to be a factor in official thinking, it is necessary to place official colonial thought in the context of rising international concern with population which included not only colonial administrators but also birth control advocates, eugenicists,

⁶ Sanjam Ahluwalia, *Reproductive Restraints*, loc.593

⁷ Ibid

⁸ David Arnold, 'Official Attitudes to Population, Birth Control and Reproductive Health in India' in Sarah Hodges, (ed) *Reproductive Health in India* (New Delhi, 2006), p.23

⁹ Ibid

¹⁰ Ibid, p.28

¹¹ Ibid, p.47

¹² Rahul Nair, 'The Construction of a 'Population Problem' in Colonial India', p.228

and intellectuals. It was these factors, he argues, more than census reports, that led to the creation of the population problem.¹³

This chapter argues that the census and demographic data were important for constructing the population problem in India in the interwar period. However, it argues that it is necessary to look not just at how colonial officials and birth control advocates rhetorically deployed population data, but also at the arguments that occurred about population data itself. Looking to the question of the statistical calculation of population growth asked by demographers, economists and statisticians in the 1930s, and tracing how questions about the reliability of population data remerged in the 1940s, reveals the extent to which the population problem was not only about land, population pressure, health or birth control, but also concerned whether population could be considered in the abstract, how to establish population facts, and where to get reliable population data. These questions were particularly important as population was increasingly linked to questions of economic development in the 1940s, when methods of data collection, the accuracy of data, and the proper 'place' of population led some to question both the nature and the existence of the population problem itself.

THE CENSUS AND THE POPULATION PROBLEM

Population encompassed a wide variety of concerns and debates in the early twentieth century.¹⁴ There was considerable debate about whether India was overpopulated, and if so, what this meant. Progress, modernization and development were all national goals that were threatened by 'irresponsible breeding', argued many of the early nationalist reformers.¹⁵ Malthusian ideas, anticolonial nationalism, and arguments based on statistical data derived from the census combined to create overpopulation 'as a national problem'.¹⁶ The shift from population as a resource to population as a problem was, Sanjam Ahluwalia argues, the product of a longer history of concern over poverty, 'backwardness' and 'underdevelopment' to which population increase had become linked.¹⁷ However, this was not universally accepted. Many

¹³ Ibid, 230

¹⁴ A great deal of literature has been produced that examines the creation of 'population' as a category and as a 'problem' in early twentieth century India. A sample includes: Sanjam Ahluwalia, *Reproductive Restraints*; Rahul Nair, 'The Construction of a 'Population Problem' in Colonial India'; Matthew Connelly *Fatal Misconception*; Alison Bashford, *Global Population*; Mohan Rao, *From Population Control to Reproductive Health*; Barbara Ramusack, 'Embattled Advocates'; Betsy Hartmann, *Reproductive Rights and Wrongs*; Sarah Hodges, 'Governmentality, Population and the Reproductive Family in Modern India'; Karl Ittmann, 'Demography as a Policy Science in the British Empire, 1918-1969' *Journal of Policy History*, 15:4 (2003), pp.417-448

¹⁵ Sanjam Ahluwalia, *Reproductive Restraints*, loc.537-552

¹⁶ Ibid, loc.589

¹⁷ Ibid, loc.626

Indian nationalists rejected outright claims that India was overpopulated arguing instead that India's growth rate was comparatively slow, particularly in light of the growth rates of many European countries, which had been both augmented and alleviated by their territorial expansion.¹⁸ Others argued that a large absolute population size was a good general indicator of health and relative prosperity, in addition to providing a large labour force.¹⁹

However, the argument that large populations were a negative, rather than positive symptom - signs of cultural, economic and social 'backwardness' - was increasingly gaining traction.²⁰ One of the first authors to publish on the problem of India's population, understood as growth impacting negatively on health and on economic wellbeing, was P.K Wattal. First published in 1916, and revised in 1934 and 1938 his book, *The Population Problem in India: A Census Study* laid out the need for a population policy to limit population growth.²¹ Others soon joined Wattal. R.D Karve published *Mortality and Birth Control* in 1921, presenting a case for the moral acceptability of birth control. N.S Phadke, who corresponded with Margaret Sanger and was published in her journal, *Birth Control Review*, went one step further and established the Bombay Birth Control League.²² Two other associations - the Sholapur Eugenics Education Society and the Madras Neo-Malthusian League - were also actively discussing population growth. Both organizations, Barbara Ramusack argues, promoted reproductive control on economic as well as eugenic and health grounds, helping to 'lay the groundwork for a subsequent shift from women's health issues to family planning as a justification for a program of reproductive control'.²³ Many making the case for overpopulation in India were also advocates for birth control. They helped generate a public discourse that was international in both content and character on birth control and fertility in India that peaked in the mid-1930s.²⁴ Western birth control advocates like Margaret Sanger took an active role - she famously discussed birth control with Gandhi - and many Indian activists and scientists were active participants in the international forums in which population, both Indian and world-wide, was being discussed.²⁵ These early authors and reformers were tapping into an undercurrent of discussion about fertility limitation in India that was becoming marginally more public by the mid-to-late 1920s.²⁶ By the early 1930s, however, discussions of population increase and its attendant problems was much more mainstream. This was due largely to the

¹⁸ Alison Bashford, *Global Population*, p.117

¹⁹ Sarah Hodges, 'Governmentality, Population and the Reproductive Family', p.1159

²⁰ Ibid

²¹ Barbara Ramusack, 'Embattled Advocates', p.36

²² Ibid

²³ Ibid, p.37

²⁴ Ibid, p.34

²⁵ Matthew Connelly, *Fatal Misconception*, ch.2

²⁶ Barbara Ramusack, 'Embattled Advocates', pp.37-41

publication of the 1931 Census, which had drawn attention to population growth. In the 1920s the first wave of population 'experts' working on population – economists, sociologists, and statisticians, among others – including R.C Dutt, P.K Wattal, B.T Ranadive, Brij Narain and D.G Karve were starting to reformulate the links between poverty and population. These two factors had been linked to the supposedly natural events of famine and disease, but increasingly it was being argued that poverty was not a consequence of population growth per se, but instead the direct consequence of colonial misrule.²⁷ In particular, they cited the lack of investment by the state into agriculture and industry, as well as excessive taxation, for exacerbating the conditions leading to poverty throughout India. This increasingly politicized formulation of the population problem originated in the early twentieth century, between 1910 and 1920, and had started to re-shape the boundaries in which debate on population occurred in India.²⁸

Between 1871 and 1921, the Indian census recorded only a 20% net increase in population. This was seen as largely unproblematic by the 1921 Census Commissioner J.T Marten, who argued that natural disasters, famines and epidemics had the effect of reducing population growth to only 7 or 8% per decade.²⁹ The lack of concern for population growth was due largely, David Arnold argues, to the fact that Marten regarded population growth as being primarily determined by natural events, unlikely to be 'significantly affected in the near future by any change in social practices'.³⁰ By the 1930s, however population – and population data – had undergone a change. The 1931 Census report drew 'urgent attention' to the rise of population between 1921-1931. J.H Hutton, then the Census Commissioner, authored the first section in a census report to directly address the 'population problem'.³¹ Arnold argues that this report 'inaugurated a new official thinking on population' – an official thinking that looked to the economy and to ecology to explain change.³² There was, he explains, a serious policy outcome of this change in attitude - the government could no longer 'count on poor health to keep population growth in "check"'.³³ Advocating the adoption of birth control, Hutton pointed to the growing moving towards birth control that was gaining pace in India, arguing that efforts to instruct people in birth control, and 'precautions to reduce the birth rate' were required in view of the rate of population increase.³⁴

²⁷ Sarah Hodges, 'Governmentality, Population and the Reproductive Family', p.1159

²⁸ Ibid

²⁹ David Arnold, 'Official Attitudes to Population', p.24

³⁰ Ibid

³¹ Ibid, p.25

³² Ibid

³³ Ibid

³⁴ Ibid, p.26

In 1932 Hutton presented a short account of the 1931 census at the Royal Society of the Arts in London. He did not stress the population problem in his account and instead began by noting that there had been no significant changes in how the census – either in enumeration or tabulation – was carried out. However the particular political conditions of 1931 had made certain aspects of census taking problematic. One of the main problems had been finding enough enumerators to conduct the census operations. The census relied heavily on unpaid volunteers, who received no payment other than ‘the unsatisfactory consciousness of virtuous conduct’.³⁵ Enumerators faced, variously, non-cooperation, super-cooperation, and complete apathy when collecting the census data.³⁶ These political circumstances and their effect on the census led Hutton to question the current method of census taking in India on the whole. ‘The question of the authority by whom the census is to be taken is also one which gives rise to difficulty...it may be necessary in a federated India to provide that each unit of federation shall be responsible for its own enumeration’, though, he argued, the results should still be handled by the Central government.³⁷

Beyond the political factors affecting census operations and accuracy, Hutton also drew attention to the problem of accuracy in gathering and tabulating census data in general. While the specific circumstances of 1931 had resulted in particular moments of inaccuracy (or just in no data being collected), in other areas the increased familiarity with the census operations, both on the part of the enumerator and from the general public, had actually led to increased accuracy. The errors of tabulation, however, were likely to be much higher than those of enumeration, not least because errors in enumeration were known errors.³⁸ The principal source of error in tabulation came from the fact that the process was done by hand. Tabulating machines were deemed to be too high cost, and the manifold difficulties faced in coding the punch cards, including the need for a highly skilled staff, and the need for a complex system of classification, were too great. This is not to say that mechanizing the census was not to be desired. Hutton argued that it was, in fact, ‘probably only a matter of time’ and would likely be

³⁵ J.H Hutton, ‘Census of India, 1931’, *Journal of the Royal Society of Arts*, 80:4154 (July 1931), p.784

³⁶ In Ahmedabad, opposition to the census resulted in communities defying both the enumerators and the police by barring entry into streets and communities, moving en-mass, and through ‘monkey bands’ – groups of ‘small boys, who made question and answer alike inaudible by their chorus of catcalls, jeers and swarajist songs’. The outcome was such that, of the 24 total wards, only 6 census schedules were completed, with officials required to estimate at the population of the city. Super-cooperation was a problem particularly in the Punjab, where ‘political rivalries were running very high, and a natural desire on the part of each community that it should pull its full strength in the country’s population led to an enthusiasm which was not only inconvenient, but tended towards inaccurate results’. J.H Hutton, ‘Census of India, 1931’, p.785

³⁷ *Ibid*, p.789

³⁸ *Ibid*, pp.788-789

linked to the creation of a permanent statistical department, instead of the current 'pitiable ephemeron', which was 'unable to put into practice the knowledge acquired from its too brief experience or to continue experiments until a satisfactory solution is obtained for its problems'.³⁹

Hutton's report also explored the census returns in greater detail, examining the results for population growth, infirmities, education, religion and caste. It was however population growth, more than any other subject, which got the most reaction from those who had come to hear him. Opening the discussion, the Chairman, Edward Gait, stated that 'the first thing to be noted was the great increase in population'.⁴⁰ The 'great increase' Hutton had discussed was the growth rate of 10.6%, which though higher than anticipated, had in some areas resulted in little more than a return to the population levels of 1891. Gait argued that the population increase had resulted from 'the absence of positive checks on the population' and the generally favourable economic and public health conditions that had prevailed between 1921 and 1931.⁴¹ Lacking 'preventive checks' owing to the traditions of universal marriage, high birth rates and the 'tendency to multiply to the limit of the means of subsistence', Gait believed that India's population – and particularly the agricultural population – would soon reach 'saturation point'. This situation Gait linked unequivocally to poverty in India.

Responding to Hutton's paper, many of those present echoed Gait. Edith How-Martyn, the well-known birth control advocate and associate of Margaret Sanger was present, and she pointedly asked if the Indian government had plans to 'deal with the situation in the future', or if it would be left until 'the positive checks came into play'. These comments, along with her suggestion that the Government could follow the example of Mysore State and provide birth control information throughout India, were largely dismissed by Gait who replied that such actions could not be pursued by the Government.⁴² Though others present questioned Hutton's paper along the lines set by How-Martyn, many of the questions concerned the organization of the census and the accuracy of the census data. P.K Wattal was also present at the meeting, and noted that he had encouraged the Government to add to the 'statistical information' that was collected by the census in order to 'increase its demographic value'.⁴³ This was needed, he argued, so that it would be possible to know whether populations were, as had been suggested by Hutton and Gait, 'reaching saturation point'.⁴⁴ The key point, Wattal argued, was that at present it was simply not possible to know – the data were too incomplete. He argued further

³⁹ Ibid, p.789

⁴⁰ Ibid, p.797

⁴¹ Ibid

⁴² Ibid, p.800

⁴³ Ibid, p.802

⁴⁴ Ibid

that greater attention needed to be placed on collecting information on life expectancy and relative fertility (differential fertility). Fertility data was of particular importance, and it was needed – along with information about the ‘artificial reduction of families’ – by those who wanted to study the ‘economic condition of India’.⁴⁵

Hutton’s paper, and the discussion it sparked, demonstrates the wide range of concerns that were connected to the collection of demographic data and the problem of population in the 1930s. For Hutton and Wattal demographic data collection, and particularly the problem of generating accurate data, was closely linked not only to the difficulties inherent in census taking but also to the larger political relationship between the state and data collection. However, for others like How-Martyn, the problems of health, differential fertility, and fertility control were more pressing. All agreed, however, that the population problem was linked to the problem of poverty, to food production, and to economic development. One of the most significant aspects of the 1931 Census however, was that it had in fact collected new data, asking for the first time how long people had been married; how many children (alive or dead) they had; how many children were still living; and the sex of the first born child. With this information, it was possible to try and calculate fertility rates, and on the basis of this, to make population projections.⁴⁶ These two factors - fertility and population projections - featured prominently alongside other understandings of population in the 1930s. The 1931 census opened up a debate between medical and public health officers about overpopulation and the population problem. Arnold argues that these debates, while inconclusive, had a hand in ‘heightening the sense that a demographic crisis was about to engulf India’.⁴⁷ However, the population problem was also occupying another space – one that remained more cautious about whether there was such a problem at all, and centred on debates over population projections.

Ways to measure population, for example by calculating density, and advocacy for birth control crystallized around the problem of population projections. The debate that occurred in the *Journal of Indian Statistics* between the economist B.P Adarkar and the public health official KCKE Raja illustrates how many of the concerns raised in the discussion of Hutton’s paper had remained influential, but were increasingly being framed around whether it was possible to predict population growth, and what information was needed to do so. The debate began with the publication in 1937 of B.P Adarkar’s article *The Future Trend of Population Growth in India*. Adarkar had taken issue with an earlier article, KCKE Raja’s 1935 *Probable Trend of Population Growth in India*, and in particular Raja’s claim that the Indian population was growing, and that

⁴⁵ Ibid, p.904

⁴⁶ C. Chandrasekaran, ‘Survey of the Status of Demography in India’, in Philip Hauser and Otis Dudley Duncan, *The Study of Population: An Inventory and Appraisal* (Chicago, 1959), p.250

⁴⁷ David Arnold, ‘Official Attitudes to Population’, p.32

this growth would increase more quickly than had been previously suggested.⁴⁸ Adarkar disagreed, and argued instead that the Indian population's 'future growth' would ultimately manifest as a declining population. Underlying this was a broader set of concerns about what constituted the correct methods to measure and calculate the growth of the Indian population. For Adarkar, the ability to predict 'future growth' was the most important, and yet most understudied, aspect of the population problem. In this, he was articulating a concern that had featured in demographic discussions from the 1920s.⁴⁹ The primary debate over projecting population growth rested on whether growth was conceived of as a biological or statistical phenomenon. Raymond Pearl's logistic curve, based on his experiments with fruit flies, provided one of the most well-known justifications for looking at growth in biological terms. The statistical argument, on the other hand, was increasingly dominated by what was becoming known as Kuczynski Fertility – the measure of net fertility rates – that allowed projections to be made on the basis of fertility and age data.

It was within this debate – between the biological and the statistical – that Adarkar located both himself and Raja. Adarkar argued that future growth was best predicted using Kuczynski's techniques. The problem, and the reason for the debate, was that using these techniques to make a projection, as Raja had attempted to do, required knowing the net fertility rate, the information for which was unavailable in India. Net fertility was found by multiplying the specific fertility rates (female births: female population) of individual years of age by the number of currently-alive women at that age, according to the life table. The sum of this is the net reproduction rate, and calculating this rate therefore required knowing the age of mothers at the time of the birth of their children, information which was not collected at birth registration in India.⁵⁰ This, Adarkar argued, had led Raja to an erroneous conclusion, namely that India's population was projected to increase. Adarkar argued strongly that the situation was in fact the opposite – India's population would briefly increase, before ultimately declining.⁵¹ He pointed to the low survival rates – both maternal and infant – for women and girls in support of his argument. Since population replacement depended on the survival and fertility of women, the low survival rates of women – where only 250 of every 1000 women

⁴⁸ This claim, according to Adarkar, was made in support of the findings of Dr. Enid Charles, who argued that India's population was 'slowly increasing'. B.P Adarkar, 'Future Trend of Population Growth in India' *Sankhyā: The Indian Journal of Statistics* 3:1 (1937), p.43

⁴⁹ See Griffith Taylor, 'This Human Family: Problems of Population and Migration' *Pacific Affairs*, 2:9 (1929), pp.575-579; Henk A. de Gans, 'Law or Speculation?: A Debate on the Method of Forecasting Population Size in the 1920s', *Population* (English Edition), 57:1 (2002), pp.83-108

⁵⁰ To overcome this problem Raja had estimated the net fertility rate for India using adjusted data from Ukraine. B.P Adarkar, 'Future Trend of Population Growth in India', pp.42-43

⁵¹ *Ibid*, p.43

completed a full reproductive cycle – meant that it was unlikely that India's net reproductive rate would exceed the rate needed for replacement. This was compounded by the 'unfavourable sex ratio' of 940 females to 1000 males, as of 1931.⁵² His trump card, however, was that while 'fertility and mortality may increase or decrease in India' once birth control 'took root' there was 'bound to be a progressive fall in fertility'.⁵³

KCKE Raja's reply took umbrage with the assertion that he had been attempting a long-range projection, and he pointed out that he had instead been trying to project population growth only into the near future. Nevertheless, he pointed to problems of the accuracy of the data, which meant that any projections would provide only 'a false sense of security which long-term prediction is attempted'.⁵⁴ Significantly, he also pointed to the Indian statistics and the inability to accurately calculate the gross or net fertility rates. However, unlike Adarkar, he highlighted the role of marriage in net fertility. For Kuczynski, he argued, fertility rates were based on the 'total female population at each age, whether single, married or widowed', but in India the fertility rates in common use were those based on the married population of women at reproductive age only. Thus, when using Kuczynski's fertility rates for India, it was essential to recognize that the important factor was the proportion of married women at each particular age, and not simply women in general.⁵⁵ Adarkar's *Rejoinder* took the debate into more overtly political territory. He argued that Raja was supporting the contentions made in the 1933 Public Health Report that the Indian population was growing at an 'alarming rate', and that this short-term and short-sighted alarmism obscured the overall trend towards decline.⁵⁶

THE NATIONAL PLANNING COMMITTEE AND POPULATION

These debates over the correct way to approach and to frame the population question were echoed in the Government of India throughout the 1930s. The National Planning Committee (NPC) was first formed in 1938 by Congress and constituted as a body of experts intended to evaluate policy choice on scientific grounds.⁵⁷ Composed of 30 members representing the fields of science, industry and politics and chaired by Jawaharlal Nehru, the NPC was tasked with developing a policy of economic development for India.⁵⁸ The main goals were national self-

⁵² Ibid, p.45

⁵³ Ibid

⁵⁴ KCKE Raja, 'Comments on "The Future Trend of Population Growth in India"' *Sankhyā: The Indian Journal of Statistics* 3:1 (1937), pp.49-50

⁵⁵ Ibid

⁵⁶ B.P Adarkar, 'A Rejoinder' *Sankhyā: The Indian Journal of Statistics* 3:1 (1937), p.55

⁵⁷ Partha Chatterjee, 'Development Planning and the Indian State' in *Empire and Nation: Selected Essays* (New York, 2010), p.243

⁵⁸ Ramachandra Guha, *India After Gandhi*, pp.204-205

sufficiency and doubling living standards within ten years.⁵⁹ It had included population in its planning requirements, forming a Sub-committee on Population to consider how population fit within the broader planning and developmental aims envisioned for an Independent India. Chaired by Radhakamal Mukerjee, the Sub-Committee approached the population problem as fundamentally one of growth.⁶⁰ While there were many other problems associated with population, it was the 'excess of births over deaths' that structured how the population problem was to be understood.

Radhakamal Mukerjee was a noted sociologist and economist who moved in the international circles made up of academics and other population intellectuals and 'enthusiasts' that had emerged after the First World War.⁶¹ For Mukerjee, overpopulation was the 'most basic' problem facing India, one he understood in terms of population density and agricultural productivity.⁶² He drew from the arguments made by Raymond Pearl in his assessment of overpopulation in rural areas, arguing that in some areas, there was such high population density that that population was declining, not growing. This, he explained, was the 'old law of diminishing returns', though he noted wryly that 'modern economic thought has moved far away from Malthus and his teachings'.⁶³ Referencing the theory of optimum density, he argued that 'the population problem of a region...resolves itself into an investigation of its population capacity in relation to the full utilization of its agricultural and industrial resources', as well as its 'agricultural capital', 'man power' and birth and death rates, all of which were to be understood in terms of density 'indicating its optimum population'.⁶⁴ Numbers, both human and animal, were 'hardly ever...adjusted' by the Malthusian spectre of starvation – instead, other checks would occur before that stage was reached; overcrowding would lead to 'lower vitality', higher incidences of disease, and a corresponding increase in the death-rate with a decline in the birth-rate. 'What is now accomplished by Nature haphazardly... ought now to be made the basis of social policy and family creed', he argued – and the best solution was birth control.⁶⁵

⁵⁹ Ibid, p.205

⁶⁰ K.T Shah (ed.) *Indian National Congress National Planning Committee: Sub-Committee on Population* (Bombay, 1949), p.17

⁶¹ Alison Bashford, *Global Population*, p.118

⁶² Sanjam Ahluwalia, *Reproductive Restraints*, loc.680

⁶³ Ibid, p.5

⁶⁴ Ibid

⁶⁵ Radhakamal Mukerjee, 'Foreword', in Bholanath Misra, *Overpopulation in Jaunpur*, (Allahabad, 1932), pp.8-9

While Mukerjee based much of thinking about overpopulation, density and economics in India's rural villages,⁶⁶ the Sub-Committee on Population relied on the census results as evidence for population growth, despite the acknowledgement they were open to 'considerable doubt' regarding their reliability. The margin of error, however, was determined to be acceptable – 'judging, however, by comparison with previous censuses, it is permissible to believe that the margin of error cannot be very large – perhaps not exceeding 1%' in the case of the 1931 census, and assumed to be larger, around 5%, for the 1941 census.⁶⁷ This growth was perceived to be problematic because the high birth and high death rates were believed to be both indicative of, and responsible for, much of the poverty in India. Explanations for this situation rested on social practices like early marriage which – by maximizing the amount of time women were able to reproduce – 'continuously adds to the total population regardless of hygienic, eugenic or economic considerations affecting every community in the country'.⁶⁸

The Sub-Committee stressed the need for a planned population to prevail for a planned economy to succeed. Referring directly to optimum population theory, the report argued that, 'at any given moment, there is for every country an optimum figure of population in relation to the available resources of the community, and its potentiality for further development. If the population is in excess of this optimum, unemployment and wastage...would be inevitable'.⁶⁹ However, finding the 'optimum population' required understanding not only the relationship between the population and all available resources, but also the generation of an accurate picture of how the population could be expected to change in both the near and distant future. For this, the report relied on the predictions being made about the probable trends in future population change, which were calculated using existing age tables and estimates of fertility – figures which, though the report does not discuss it, were highly contentious at the time, and hotly debated by demographers, statisticians and other social scientists.⁷⁰

On the basis of the age-group and fertility data from which population trends were predicted, the Sub-Committee made the recommendations that 'social legislation' was urgently required to 'combat the effects of population maladjustment and poverty' including changing the inheritance laws; compulsory free education; limiting the expenditure on marriages and caste ceremonies, and gradually raising age of marriage to between 15 and 20; the abolition of

⁶⁶ C.A Bayly, *Recovering Liberties: Indian Thought in the Age of Liberalism and Empire* (Cambridge, 2011), ch. 10

⁶⁷ K.T Shah, *National Planning Committee: Sub-Committee on Population*, p.18

⁶⁸ *Ibid*, p.20

⁶⁹ *Ibid*, p.30

⁷⁰ The Report used the Kuszynski method for calculating fertility to find the net reproduction rate, and used the fertility data for Japanese women, because the data for Indian women was unavailable. *Ibid*, pp.36-43

polygamy and of untouchability.⁷¹ The report also discussed birth control and abortion, arguing that while reducing child marriage, providing more education and a better quality of living would reduce maternal and infant mortality, the likelihood would also be that it would – owing to higher rates of maternal survival – increase population growth as well. Therefore, the report argued, these policies had to be ‘backed up by the programme of birth control for the masses in this country’.⁷² Using evidence derived from abortion in cattle, the report noted that malnutrition and “irregular breeding” had resulted in abortion, which was reported to be common also among women who regularly experienced food shortages. Access to birth control would, it was argued, help ensure that each pregnancy was wanted, and would help lead to the birth of more healthy children – this emphasis was also expressed in more outright eugenic terms, as a way to combat the ‘mispopulation’ that was ‘in evidence among the more fertile but less intellectual strata of society’.⁷³ The report recommended that contraceptive knowledge be diffused through the medical colleges, the training of women doctors and nurses, and the establishment of birth control clinics which would supply free contraceptives, encouraging the local manufacture of contraceptives – ‘whether rubber, cotton or chemical, which will be used for the purpose of contraception’. It also advocated the distribution of birth control propaganda through municipalities, district boards and panchayats, encouraging ‘2-4 years spacing of births and the limitation of the total family to 4 children in India’.⁷⁴

However, while the report recommended the spread of birth control, reproduction was not presented as the cause of the population problem. In their final report, presented in May 1940, the Sub-Committee argued that the basic population problem in India was that of size, and observed how an ‘unrestricted increase’ would outstrip the means of production and hamper planned economic growth. At its most basic level, it was argued, this problem was caused by a ‘lack of all-round, co-ordinated economic development’, and that ‘while measures for the improvement of the quality of the population and limiting excessive population pressure are necessary, the basic solution of the present disparity between population and standard of living lies in the economic progress of the country on a comprehensive and planned basis’.⁷⁵ One of the steps required to solve this problem, the report made clear, in addition to social, nutritional and economic changes, was the maintenance of vital statistics, and, critically, ‘the carrying out of periodic demographic surveys on comprehensive lines’, with ‘appropriate machinery’ devised to facilitate this process.⁷⁶

⁷¹ Ibid, p.77

⁷² Ibid

⁷³ Ibid, p.79

⁷⁴ Ibid, p.81

⁷⁵ Ibid, p.173

⁷⁶ Ibid, p.174

The Sub-Committee on Population was formulating its recommendations in a time when much was unclear about the nature of the population problem, particularly as it related to economic development. Not only was the relationship between fertility and economic growth contested – Nehru himself remained unconvinced that fertility decline was required for economic growth⁷⁷ – the sources of data about fertility, and on the utility of family planning and birth control were of variable quality, were often derived from research conducted on a small scale, and largely considered to be of questionable reliability. However, the emphasis placed by the Sub-Committee on the population problem (as linked to population growth and economic development), family planning and demography, was a formulation actively taken up by researchers and academics during the 1940s.

PRODUCING FACTS ABOUT POPULATION: RETURNING TO THE CENSUS

Population, data collection and government statistics were topics of international interest during the interwar period, and various programmes were being promoted by international bodies like the League of Nations in an effort to promote ‘greater comparability’ between the statistics that were being gathered by states. Supported by the Rockefeller Foundation, the League of Nations ran a programme that was intended to enable government statisticians to travel and observe the way statistical administrative systems operated in other countries.⁷⁸ This support for statistical expertise coincided with a renewed interest in population in League,⁷⁹ and with the preparations for the decennial census in India. Thus, when in the late 1930s the Government of India were invited to suggest a candidate for this programme, they chose M.W Yeatts – Commissioner for the Census – who, like his predecessor Hutton, was particularly interested in census statistics and differential fertility. Yeatts requested that, in addition to the United States, Canada, and Switzerland, he be funded to visit Sweden, which had the most established tradition of measuring vital statistics and calculating differential fertility ‘as expressed statistically’ than any other country. He hoped that he would be able to collect the data necessary to study differential fertility in the 1941 census, and believed it to be a category with particular bearing on ‘the future economic position of any country’ and that there was ‘considerable scope for it in India’.⁸⁰

The outbreak of the Second World War interrupted many of these efforts at the consolidation of statistical methods and exploration of population questions, and adversely impacted the 1941 census. Continuing the tradition of presenting reports on the census to the

⁷⁷ R.A Gopaldaswami, ‘Administration in India: A brief account of personal Experiences during the last twenty years of British rule and the first fifteen years of Independence’ (June 1984) MSS EUR D1064, British Library, London (hereafter BL)

⁷⁸ A. Loveday to Secretary of State for India, August 25th 1937 IOR L/E/8/953, [BL]

⁷⁹ Matthew Connelly, *Fatal Misconception*, loc. 1702

⁸⁰ W.M Yeatts to T.B Kittredge, 4th May, 1938 IOR L/E/8/953 [BL]

Royal Society of the Arts, Yeatts submitted a somewhat delayed paper in 1943. In it, he drew attention to the decisions that had been made by the Government of India to constrain census operations to the 'bare tabulation of communities' owing to the constraints of the war. Yeatts also pointed to the problematic functioning of the census in general: 'the phoenix system under which the census in India has been run had, even in 1931, endangered its successful continuation', he argued, noting that the problems with the overall administration of the census needed to be addressed.⁸¹ What was needed, and what Yeatts suggested he intended to do, was to push both the administration and execution of the census towards 'proper adaptation to changes in the administrative, political and social scene'.⁸² The main problem with the census as it currently stood, he argued, was that it was too much of a 'blunt instrument', when what were increasingly needed were specialized inquiries. This was not only an issue of data collection. Pointing in particular to 'quasi-medical enquiries', he argued that the census concealed the real responsibilities of provincial governments – responsibilities that would be made clear through 'skilled enquiry' generating accurate data.⁸³

Yeatts also elaborated on the changes that he had made to how the census was conducted. Abandoning the old census schedules, he had introduced a new method whereby the enumerator recorded the data directly onto new slips, which were then sorted. This change allowed Yeatts not only to sort the data by machine, but in one case gave results precise enough to 'identify the actual village' from which the data had been gathered.⁸⁴ Remarking on the difference in response to the 1941 census Yeatts again drew attention to the community as a source of data. He noted that responses had been 'extremely active', motivated by an 'acute interest in community figures', which meant that 'practically all communities this time were census-conscious and took pains...that they themselves were counted'.⁸⁵ The major point, he concluded, was that the census should not be thought of as the detached, inconsequential or esoteric activity of the census officers, reoccurring on a ten-year basis. This attitude, he warned, was not only 'unscientific' and 'wasteful' but 'possibly by now even dangerous'.⁸⁶ Instead, efforts should be made to ensure that information was being collected that was both 'organically related to the general statistical system' but that could also meet 'anticipated additional needs'. This applied in particular to the collection of vital statistics, which were underdeveloped and under supported by the Central Government, but which were the basis not only of population policy but also the 'community record' and any understanding of the 'civil

⁸¹ W.W.M Yeatts, 'The Indian Census of 1941' *Journal of the Royal Society of Arts*, 91:4643 (March, 1943), p.182

⁸² Ibid

⁸³ Ibid, p.183

⁸⁴ Ibid, p.183

⁸⁵ Ibid, p.184

⁸⁶ Ibid, p.187

condition' of India. What was needed, Yeatts argued, was a mode of continuous data collection rather than the current episodic system, as well as 'perfect statistics', uncorrupted by 'emotional or factitious elements'.⁸⁷

By the 1940s the Government of India was in the midst of a confidence-crisis regarding its population statistics. Increased government interest into population, and reports like those made by Yeatts, had led to calls for better data. The 1944 Population Data Committee was tasked with looking into available data on population growth as part of the reconstruction planning efforts being undertaken by the government. Driving the formation of the Committee were many of the same concerns and questions that had typified population studies in the 1920s and 1930s, particularly those of planning, projection, and population growth. Scholars who had been involved in the early debates over India's population and the ability to predict future growth – such as Yeatts, KCKE Raja, and P.C Mahalanobis – were also closely connected to the large-scale attempts of national planning and population projection being made by the Government of India. The Population Data Committee, formed explicitly against this backdrop of population change, industrial development, and large scale planning, was tasked with assessing the knowledge required to forecast how population could be 'expected to change'.⁸⁸

For Yeatts, the concern of the Population Data Committee was to determine 'what are the facts?' In this he saw many parallels with other Government inquiries into population – particularly the Royal Commission on Population being undertaken in the United Kingdom. However, while the Royal Commission was happy to provide limited assistance – including helping establish lines of communication between Yeatts and R.R Kuczynski and Kingsley Davis – those working on the Royal Commission remained adamant that the data being collected had little relevance for India. Replying to these concerns, Yeatts stressed the universality of facts – 'The big point I am trying to get over', he wrote to C.F Wood at the Colonial Office in London, 'is the basic importance of information and methods...information does not drop from the skies but has to be organized'.⁸⁹ He pointed out that mathematical analysis could be applied in any scientific inquiry, and that 'it is precisely the general attitudes, approach and methods we are after, and if these are exhibited through material arising in England that does not affect their value to us'.⁹⁰

While the scientific aspects data collection may have been universal and universally applicable, their policy implications were not. The report was careful to call attention away

⁸⁷ Ibid, p.187

⁸⁸ Department of Education, Health & Lands, *Report of the Population Data Committee* (Government of India, 1945), p.1

⁸⁹ W.M Yeatts to C.F Wood, 21/22nd September, 1944 IOR L/E/8/2690 [BL]

⁹⁰ Ibid

from the abstract and generalized category of 'population', and to return to a focus on people, who were the subjects not only of administration, but also of development projects. What was at stake, the report argued, was the solution to the population problem itself: 'we cannot solve the so-called "population problem" except at second hand through the individual volitions of human beings...one might say that the prime aspect of any so-called population problem is this elementary but elemental one that "population" is just another way of saying people'.⁹¹ Thus, while the Population Data Committee stressed the need to develop methods to accurately survey and assess population events and changes, they also emphasized the importance of 'evolving methods in harmony with the life of the people whose births and deaths we seek to record'.⁹²

Nevertheless, the problem of planning and providing for people had, by 1945, become acutely apparent and the requirement of the Government for information – including present population and more important, an indication of future growth – was becoming increasingly pressing. The report had indicated that an organization administered from the centre was required to co-ordinate information on population growth,⁹³ and recommended the creation of age tables, life tables and population forecasts.⁹⁴ In proposing this, the Population Data Committee sought to provide the Government of India with precise (but not, they made clear, final) data that reflected the scope of existing knowledge on a particular question.⁹⁵ This was crucial to understand, the Committee argued, if policy decisions were to be made on the basis of population statistics. Pointing to the collection and analysis of vital statistics in India, they argued that, though there was knowledge – such as that India's birth, death, and infant mortality rates were higher than in the West – this did not correspond to an ability to accurately state the actual rates themselves.⁹⁶ The problem that the report highlighted for policy-makers was one of generating the 'accurately reported facts' that were needed to write good policy: the key concern of the Committee and key finding of the report was the question of how to gather and organize the correct information about population.

Following from this, the Committee called for an administrative system that could get as 'close to the ground' as possible. This would allow for the more accurate 'translation' of social phenomena into statistics, in turn producing an improved record.⁹⁷ Doing so required the development of new methods of data collection. The problem with the current method was

⁹¹ *Report of the Population Data Committee*, p.1

⁹² *Ibid*, p.2

⁹³ Shriram Maheshwari, *Census Administration Under the Raj and After* (New Delhi, 1996), p.154

⁹⁴ *Report of the Population Data Committee*, p.3

⁹⁵ *Ibid*

⁹⁶ *Ibid*

⁹⁷ *Ibid*, pp.3-4

perceived to be one of inaccurate data collection: vital statistics were 'collected in many cases at second or even third hand' with potentially 'no stronger basis than the recollections of an illiterate chowdika'.⁹⁸ This, it was made clear, was not the fault of the Chowdika, 'who with his fellow officers is in many ways the basis of the whole Indian governmental scene', but with the role he was being asked to perform.⁹⁹ The lack of contact between the collector and the data introduced, it was argued, error and delay in a sometimes 'pronounced form'. The goal, therefore, was to 'produce a record as close as possible to the phenomena and as free as possible from intervening human agencies'. A large part of the 'serious' study of Indian population – rather than the production of year figures "for the League of Nations Yearbook" – was to locate the 'proper unit for population measurement'.¹⁰⁰

One methodological approach the Population Data Committee looked to in its attempts to determine the proper unit of population measurement were the sampling techniques that had been trialled by Mahalanobis and Yeatts during the 1941 census. Mahalanobis and Yeatts had worked together on the collection and tabulation of some of the census results. They had altered some of the ways data was collected during the census; in particular Mahalanobis had convinced Yeatts to abandon the old household forms which were used to ascertain 'characteristics of successive households in a defined locality' in favour of 'one person, one slip' individual enumeration forms.¹⁰¹ These forms were much easier to tabulate by machine¹⁰² and, Mahalanobis argued, would provide the 'small, statistically sound and representative sample basis' that was needed for development and planning policies.¹⁰³ He further argued that this method would make census taking considerably cheaper by reducing the cost of enumeration, tabulation and publication of the results, and would additionally provide a more representative sample of the 'social, economic and cultural characteristics of the population', reducing the 'errors, internal inconsistencies, and undercounts' that had plagued census taking previously.¹⁰⁴

⁹⁸ Ibid, p.4

⁹⁹ Ibid, p.4

¹⁰⁰ Ibid, p.4

¹⁰¹ Asok Mitra, 'New Pathways: Census 1961' in Sebastian Irudaya Rajan *India's Demographic Transition: A Reassessment* (New Delhi, 1997), p.15

¹⁰² Hollerith machines were just one of the kinds of machines used to tabulate data. Also used were data processing machines from IBM and Powers' Samas. The ISI also had the first electronic digital computer – the HEC-2M - purchased in 1953/54 from the British Tabulating Machines Co. Ltd. Arriving in India in January 1955, it took six months to build, and was ready by June. Two engineers appointed by the ISI had been sent to the UK to learn how to use, install, program and service the machine. See U.K Banerjee (ed.), *Computer Education in India: Past, Present and Future*, (New Delhi, 1996), pp.1-13

¹⁰³ Asok Mitra, 'New Pathways: Census 1961', p.15

¹⁰⁴ Yeatts had also emphatically made this point a year previously, arguing that sampling, though only one of a number of possible methods, would nevertheless be useful when looking

52

After the data for the 1941 census was collected, Mahalanobis persuaded Yeatts to produce the 'Y-Sample' tables¹⁰⁵– 2% samples of the total census enumeration – so that the ISI could machine-tabulate the results.¹⁰⁶ Tabulation had been strongly promoted by Yeatts during the 1941 census, and he had experimented with machine tabulating the Delhi census results at the Central Board of Revue. Ultimately the problematic process, and the enormous cost of collecting 'one slip' data, which required a vast number of enumerators, and faced additional difficulties due to India's low levels of literacy, meant this approach was not carried forward into the 1951 census.¹⁰⁷

The Population Data Committee, however, were interested in using the Y-Sample tables to assess available population data, though there remained concerns over the data's accuracy and on the possibility of providing accurate India-wide statistics. This was particularly the case when birth and death rates were calculated from small villages and towns ranging from under 5,000 people to up to 10,000. The outcome of this was to produce a rate – particularly at the smaller end of the sample – that had no statistical significance. The small town, the Population Data Committee argued, 'offers no serious base for the calculation of regular birth and death rates'.¹⁰⁸ The Committee's search for the correct unit of population measurement and for accurate data that was useful for policy-making had led it down the methodological path carved out by Mahalanobis and Yeatts, both of whom were committed to providing population statistics on an India-wide scale. However, finding population data to work with was problematic – 'the field', the Committee's report lamented, 'is bare'. Obvious sources of data included the census and vital registration, and other potential sources, including the data collected by life insurance companies, was too limited.

By the late 1940s several more Government committees had been established to assess questions about statistical accuracy and reliability. In 1948, Nehru initiated a review into how statistics in India were organized, resulting in the establishment of the Standing Committee of Departmental Statisticians.¹⁰⁹ This Standing Committee marked the beginning of the official

at the 'needs of the country as a whole'. W.W.M Yeatts, 'The Indian Census of 1941', p.186; Asok Mitra, 'New Pathways: Census 1961', pp.15-16

¹⁰⁵ Y in this case stood for Yeatts

¹⁰⁶ Problematically, many of the physical slips the data had been collected on were lost or destroyed during the Second World War, and difficulties were faced in transporting the surviving slips to the ISI and in storing them once they had arrived. These logistical problems were compounded by the difficulties the Indian Statistical Institute faced in working with the data.

¹⁰⁷ Asok Mitra, 'New Pathways: Census 1961', p.16

¹⁰⁸ *Report of the Population Data Committee*, p.8

¹⁰⁹ Department of Economic Affairs, Ministry of Finance, *The National Sample Survey, General Report No.1*, (Government of India, December 1952), p.1

process that led to the creation of the National Sample Survey. In 1949, the Central Statistical Unit and National Income Committee were formed. The National Income Committee Chairman was P.C Mahalanobis, and members included D.R Gadgil and VKRV Rao. The purpose of the National Income Committee was to provide reports on national income and to suggest improvements – particularly as regarded the quality of data – and to indicate what further data should be collected.¹¹⁰ By the end of 1949 the work of both the National Income Committee and the Standing Committee had indicated the existing gaps in statistical information, coupled with an urgent sense that the quality and quantity of statistical information needed to be improved. The Population Data Committee, Standing Committee of Departmental Statisticians and National Income Committee drew attention to population statistics and administration in the 1940s. By the late 1940s the role of population projection as an administrative tool in the arsenal of governments – and especially for planning – had been solidified. However, this had not subsumed population to abstractions, as was made clear in the emphasis placed on people as well as on the sources of data. The problem of the availability and the quality of the data, and particularly about the proper units and sites of data were very much up for discussion. Whether it was possible to extrapolate from specific regions to all of India, whether it was death and birth, or only birth, that was within the administrative concern of the planner and the administrator, and how best to collect high quality data, were all being debated in the Government.¹¹¹

THE QUESTION OF UNITS

While the Population Data Committee had largely concentrated on the population data available through the large-scale governmental projects like the census, they were also aware of the newly emerging pool of population data being generated by individual research organizations. One of the first institutions engaged in demographic research in India was the Gokhale Institute of Politics and Economics. Following early field studies in the 1930s,¹¹² by the mid-1940s the Gokhale Institute was tackling demographic research on a larger scale.

N.V Sovani began in the 1940s to work on published population data, the results of which were given in his 1942 study, *The Population Problem in India: A Regional Approach*. One of the main problems in studying the population problem in India, Sovani argued, was that of separating the ‘nonsense’ and alarmism from the actual issues, particularly in the area of population forecasting, which relied heavily on accurately measuring fertility and mortality. Sovani argued that the neglect of ‘biological considerations’ – especially birth rates, death rates,

¹¹⁰ Ibid

¹¹¹ *Report of the Population Data Committee*, p.8; The Population Data Committee argued that death was the particular concern of the public health officer.

¹¹² Notably the Socio-Economic Survey of 1938-39. See S.P Jain *Relationship Between Fertility, Economics and Social Status in the Punjab* (Lahore, 1939)

and life expectancy, which were often treated as separate from each other – had produced ‘curious theories’ about India’s population that dominated much of the literature.¹¹³ D.R Gadgil, head of the Gokhale Institute, argued forcefully in the foreword for a re-framing of the study of India’s population problems from an India-wide scale, which had ‘failed to yield significant conclusions and was indeed apt to mislead’, to instead look at ‘smaller and more integrated regions’.¹¹⁴ To achieve this, Sovani had amassed available data on economic conditions, population movement and composition within ‘homogenous and/or integrated regions’. The aim was to identify from this data trends and correlations between movement, the environment and population composition (including growth) for a particular area. The justification underlying the study, Gadgil argued, was ‘the assumption that India is too vast and too heterogeneous in respect of all factors which should count in a study of the problem of population....and that the Indian population problem is not a single problem but a collection of a number of different types of problem’.¹¹⁵ These assumptions undercut the results – and particularly the averages – worked out in all-India studies, by rendering the calculations effectively meaningless. What was required instead were studies of the population problem that looked both to general population theory but also to the particularities of not only the Indian situation as a whole, but within India as well. It was therefore ‘vitally necessary’ to split the population problem into ‘a number of properly constituted units’.¹¹⁶ These units were not chosen freely; Gadgil highlighted that their choice was constrained primarily by the ways that data had been collected in the past.¹¹⁷ Understanding how this had shaped the data on India meant looking to the census and to the ‘natural units’ created by it. ‘Natural units’ were the product of the census compilers, who divided their data-collecting areas according to geographic features. These areas tended to be homogenous with regards to language and society, as well as small in size. By rendering this division ‘natural’, the Census could reproduce its measurements in each successive enumeration. By constructing this system, however, the census effectively locked-in a particular way to view the limits of population with respect to the data – defining a region in a different way made the census data, which was the chief source of all demographic data on India – ‘impossible to compile’.¹¹⁸

Sovani purposefully distanced himself from the sensationalism of contemporary writing on population in India. He instead set himself the task of providing a ‘critical study’ and

¹¹³ He included as an example of a “curious theory” D.G Karve’s influential *Poverty and Population in India* (Oxford, 1936)

¹¹⁴ D.R Gadgil, “Forward” in N.V Sovani, *The Population Problem in India: A Regional Approach* (Poona, 1942), p.i

¹¹⁵ Ibid, p.i

¹¹⁶ Ibid

¹¹⁷ Ibid, p.ii

¹¹⁸ Ibid

‘realistic point of view’ using a different method to many other population studies.¹¹⁹ In doing this Sovani directly set himself against the current trend in population writing, waging, as he put it ‘an armed resistance’ against general population theory. Taking up the arguments of Gadgil, Sovani contended that this battle was to be waged against arguments about India’s population that were ignoring the specificity of particular cases. He cited the arguments made about population and continually discussed – looking at Malthus, Raymond Pearl and R.R Kuszynski in particular. Dismissing Malthus and accepting Pearl only so far as accepting the importance of biology (without accepting the logistic curve), Sovani instead sided with Kuszynski, praising his work on fertility rates, though he noted that, problematically, there was insufficient data on India to use his techniques effectively. What all of these debates meant for the population problem in India was to lead to the questioning of whether there *was* a population problem: ‘The cry of over-population has been ringing in our ears for so many years...that we are at last beginning to wonder whether such a thing exists at all’.¹²⁰ The alarmist – both in terms of denying over-population, and in overstating it – ‘is always with us’, Sovani stated. The competing claims of food production, birth control, death control¹²¹ and public health had the effect of detracting attention away from an already vague understating of ‘the main problem’. This was exacerbated by the misapplication of general theories such as optimum population theory, biological theories, and population forecasts. Population forecasting in India was particularly problematic, Sovani argued, being plagued by ‘sweeping generalizations and prophetic predictions’, based principally on Swedish ‘age group theory’ that had been convincingly undermined by Kuszynski.¹²² Given this, discussing the Indian population problem therefore required a ‘realistic approach and an open mind’ – and one of the first and most necessary steps was to stop considering the Indian population as a whole, and to instead take a regional approach.¹²³

The debates over how to collect population data, and where to collect it from, strongly influenced how people thought about both the population problem, as well as population policy. Whether the population problem was one problem or many, if it was national or regional, and how it should be measured and understood were topics of contention into the 1950s. However, debates over population data had also served to bridge the two major strands of population thought – the demographic and the ‘activist’. In *The Population Problem in India*, Sovani had attempted this, arguing strongly that the population problem of India was

¹¹⁹ N.V Sovani, “Authors Preface”, in *The Population Problem in India*, p.xiii

¹²⁰ Ibid, p.4

¹²¹ “death control” was a commonly used phrase referring to the demographic effect of interventions – such as public health campaigns for vaccination – that had the effect of lowering the death rate.

¹²² Ibid, pp.6-7

¹²³ Ibid, p.7

connected to social practices that impacted birth rates: 'In any society the birth-rate is primarily affected by socio-economic factors obtaining in that society, which are rooted in the prevailing economic and biological factors'.¹²⁴ The 'social fabric' of Indian society was, he argued, such that 'biological processes' were given free play, with the result that population growth continued because social conditions allowed it to do so. Looking at the social conditions that impacted on fertility and mortality could therefore account for variations in population growth in different sections of Indian society. The factor of prime importance was mortality, though social customs, poverty, industrialization, and the 'rationalization' of production were also significant. Understanding the social conditions that affected birth and mortality rates were themselves not enough. While the government was engaged in projects to alter the economic conditions of India, the other tactic that was needed, Sovani argued, was birth control. Implementing a birth control policy for India was 'not so much a problem of technique, but a definite social psychology...the mentality of prudence, foresight, and above all 'conscious control' behind it that matters...A wise policy of conscious control of reproduction is what is called for. Its application will differ, of course, according to the particularities of every region'.¹²⁵

¹²⁴ Ibid

¹²⁵ N.V Sovani, *The Problem of Population in India: A Regional Approach* (Poona: 1942), p.209

CHAPTER TWO: PLANNING AND THE POPULATION PROBLEM IN INDEPENDENT INDIA

The national story of population control and of the population problem in India is typically argued to begin in 1952, when the Government of India announced an official policy of fertility limitation as part of the First Five Year Plan.¹ This chapter argues that 1952 marked not the beginning of ideas about the population problem but rather the consolidation of several strands of argument that had developed over the 1930s and 1940s. The effect was to create the 'national' population problem that could be addressed in policy. This chapter explores how population became national, and population data became linked to national planning and policy-making, by looking at the to the creation and deployment of a new kind of population research – the sample survey and the field survey – and the changing arguments about population in demographic thought.

The changing nature of arguments about population from the colonial to the post-colonial period has been well documented. Sarah Hodges argues that population thought underwent three broad changes – from natural history in the nineteenth century, to being linked through a nationalist critique to ideas of a 'nascent modernity', before being consolidated as 'overpopulation' thought in the post-war, post-colonial period. This last shift to overpopulation, she argues, involved the linking of population to arguments about economic and political development, and resulted primarily from the work of American demographers.² This shift, she states, also involved a move from the national to the global, both in terms of the statistics of overpopulation, as well in terms of population policy.³ Like Hodges, Nilanjana Chatterjee and Nancy Riley argue that population thought underwent a change in the transition from colonialism in India, a change they ground more firmly in the developmental ideology of the Indian state. This national basis for fertility control derived from the combined influences of the 1945 Bengal Famine Inquiry, the 1946 Bhore Committee and the consolidation of private family planning advocacy in the Family Planning Association of India in 1949.⁴

Partha Chatterjee has shown how in the 1940s, nationalist arguments against colonialism were predominantly about the negative relationship between colonialism and development – colonial rule was a 'fetter' that had to be removed 'before the nation could

¹ Burton Stein, David Arnold (ed.), *History of India*, p.365

² Sarah Hodges, 'Governmentality, Population and the Reproductive Family', pp.1160-1161

³ Ibid, p.1160

⁴ Nilanjana Chatterjee, Nancy Riley, 'Planning an Indian Modernity', p.822

proceed to develop'.⁵ This line of argument created a framework in which an economic critique of colonialism took centre stage.⁶ The developmental ideology became a key aspect of how the postcolonial state defined itself – acquiring its representativeness, Chatterjee argues, not just from representative government, but also from its project of economic development.⁷ Planning, a key part of state-led development, became the 'domain of rational determination and pursuit of universal goals' – and it was through planning that the state claimed to act with 'the will of the nation' – pursuing a task that was both universal and rational: the well-being of the people as a whole'.⁸ Planning, Chatterjee argues, required 'constituting the objects of planning as objects of knowledge'.⁹

Population had become an 'object of planning' in 1938 when it was included by the NPC as a category of planning and development. However, producing population as 'object of knowledge' had been challenging. The debates over the census data, and over how to collect and interpret demographic data had led some to conclude that the population problem, as a single homogenous problem, did not exist – instead, it was argued to be a regional problem. However, by 1952, population was once again constructed as a national problem, amenable to a national policy solution. This resulted in part from the work done by the sample survey, which was developed in 1950. As Mike Savage has shown, sample surveys are a key technology for linking 'scientific' and 'rational' data to knowledge that is 'fit for modern government'.¹⁰ Significantly, sample surveys help to create 'the nation' out of representative samples, using number instead of narrative to create a 'statistical account of the nation'.¹¹ This chapter argues that in India, debates over the National Sample Survey (NSS), about the use of data for policy-making, about the links between demography and development, and the new arguments being made by the private and non-state research efforts of demographers and social scientists were key in linking population to ideas about the nation, development, the economy, and planning – both national planning, and family planning – in the early 1950s.

⁵ Partha Chatterjee, *The Nation and Its Fragments: Colonial and Postcolonial Histories* (Princeton, 1993), p.203; See also Benjamin Zachariah, *Developing India: An Intellectual and Social History, 1930-1950* (New Delhi, 2005)

⁶ Ibid

⁷ Ibid

⁸ Ibid, p.205

⁹ Ibid, p.207

¹⁰ Mike Savage, *Identities and Social Change in Britain*, p.189

¹¹ Ibid

VISIONS OF THE NEW WORLD: PLANNING AND SOCIAL CHANGE

While the developmental logic of the Indian state was largely inflected around economic development, in the 1940s planning - including family planning - was being invoked in wider arguments about planned social change in India. Reflecting the arguments about scale that were present in debates about population in the early 1940s, social change was also being considered at radically different levels – ranging from the province of the central state, to the individual family and home. Linking these arguments was a key idea: that social change was something that could be planned. In 1938, Radhakamal Mukerjee had argued that India needed ‘rational family planning’ combined with ‘education of the masses in birth control’ as a means to curb population growth: ‘The small family system, deliberately planned and integrated with other habits and traditions which regulate different sides of domestic life, must now be adopted in India as the social and ethical norm’.¹² Creating the correct ‘mental attitude’ was based in larger programs of development and efforts to improve the standard of living. ‘Fatalism’, he argued, ‘has to give place to a consciousness of individual responsibility’.¹³ As a solution to the population problem, birth control required cultural support and its spread and adoption would result from education and spread of public hygiene. The links between ‘rational family planning’ and population growth had become established in India in the 1930s, and Mukerjee’s discussion of the need for family planning and education in birth control to lower population growth was connected to an on-going wider public discussion of birth control and population that was itself linked to gendered arguments about nationalism, rising communalism, and the development of women’s associations.¹⁴ However, family planning was also featuring in another set of arguments, about planned social change.

In 1945, Kewal Motwani gave a series of lectures on science and society in India. To illustrate the principle of social change, he told his listeners a story. In Nicholasville, Kentucky a funeral was taking place. Assembled mourners gathered around a casket as it was lowered into the ground. The pastor preached a funeral sermon, and those assembled cheered loudly – a kerosene lamp had been buried, and electricity had come to town.¹⁵ The story, he explained, illustrated the relationship between social change, technological development and culture. Cultures were part of an ‘organic whole’, and introducing a new element – a new ‘cultural trait’ – whether objective or subjective would ‘affect the entire range of social relations and initiate

¹² Radhakamal Mukerjee, *Food Planning for Four Hundred Millions* (London, 1938), p.217

¹³ Ibid

¹⁴ Barbara Ramusack, ‘Embattled Advocates’; Sanjam Ahluwalia, *Reproductive Restraints*; Nilanjana Chatterjee, Nancy Riley ‘Planning an Indian Modernity’, p.821; Alison Bashford, *Global Population*, p.220

¹⁵ Kewal Motwani, *Science and Society in India* (Bombay, 1945), pp.32-33

an era of inclusive change'.¹⁶ Having been set in motion, the 'whole of life' would be re-arranged. Most importantly, he noted, this process of social change '*can be planned*'.¹⁷ Amenable to human reason and intelligence, social change could be predicted and directed. Applying science 'to the problems of living' would revolutionize all aspects of life. These new developments in science, he argued, were profoundly altering society and man's place within it – the 'atomic, arrogant "rugged individualism"' of the past was being 'snuffed out'.¹⁸ In its place was emerging a new philosophy of duties, of social integration, and of 'subordination of the parts to the claims of the whole'.¹⁹ Even the right to life itself had been brought under this new logic – children needed to be wanted 'even before they were born', and assured a high quality of life. Population had to be reduced to find the balance between man and land. All of this social change should be overseen, he argued, by a strong central state that could adopt and adapt the techniques of social science into effective administration.²⁰

The application of the natural sciences and the social sciences to revolutionize life was a concept that had been gathering momentum since the inter-war period. The projects of planning society and planning biological life were increasingly seen as linked. While developments in industry and agriculture had given people command over the life of plants and animals, social science was believed to hold the key to controlling the life of society. Motwani's vision of social planning was one conducted on a large-scale; the strong centralized state exerting control over the nation. However, others envisioned planning and social change on the small scale. In 1949, F.L. Brayne,²¹ late of the Indian Civil Service and the Indian Army and self-proclaimed 'pioneer of rural reconstruction', published a treatise on the implications of planning and development, relating these to the population problem in India. *The Peasant's Home and Its Place in National Planning* argued that planning offered a novel solution to meet the problems of a growing population and a dwindling food supply through the process of 'living deliberately'. 'Starvation and malnutrition can be easily removed', he argued, so long as people were prepared to 'do the simple things that science and discovery had made possible'.²² This required, he emphasized, a new approach to the problem – it had to be understood as

¹⁶ Ibid, p.35

¹⁷ Ibid

¹⁸ Ibid, p.57

¹⁹ Ibid

²⁰ Ibid, p.77

²¹ For more information on Brayne, see: Clive Dewey, *Anglo-Indian Attitudes: The Mind of the Indian Civil Service* (London, 1993)

²² F.L. Brayne, *The Peasants Home – And Its Place in National Planning* (London, 1949), p.1

fundamentally social, not as economic - and 'a direct attack' had to be made 'on the standard of living itself'.²³ This included not only social and economic life, but domestic life as well.

The key, Brayne explained, was planning. Effective planning rested on knowing what people wanted and needed, which would give the planner something to work with, as well as giving people a reason to execute the plan. Rather than 'planning from above', it was best to start from the home and 'plan up'. Modern communications had 'pitchforked' the 'ancient villages' into the 'vortex of world prices and world shortages and surplus that made up modern life'.²⁴ Likewise, modern administration had removed the Malthusian controls of famine, pestilence and warfare. Ordinary administration and welfare were not sufficient to persuade people to change their behaviours, he argued, and 'the gap between the laboratory and the field' was large and growing larger.²⁵ The villager, Brayne despaired, was 'advancing backwards' – resistant to change and progress, unable to achieve a higher standard of living, and unaided by the Government which was 'too timid to attempt radical social change'.²⁶ What was needed he argued, with a prophetic quality, was a target to aim at for Government planning. The absence of targets had led to 'lop-sided development' which could and should be corrected by creating a 'new way of life carefully planned and systematically taught'.²⁷ Such a scheme, he admitted, 'may sound drastically totalitarian', but it was too late to question – millions were heading towards starvation, and something had to be done.²⁸

Planning was to be located in the home, which had been overlooked in the efforts to develop agriculture and industry. Mass instruction was needed to bring knowledge of the benefits of modern science to the homes of those who needed to know, in a way that they could understand. The economic problems of the villagers, he maintained, could only be attacked by raising the standard of living, which was the key to modernization and development. The incentive of a better home and the welfare of the woman who keeps it was, he asserted, the 'centre of all national planning'.²⁹ The ideal village and the ideal home were transformed by developments in agriculture and infrastructure – the landscape was free of erosion, livestock were contained and well-bred, crops were irrigated and tended with 'modern methods', and there had been a general 'rise in civic consciousness' throughout the community.³⁰ In this ideal village the housewife had 'ceased to be a neglected drudge'. She had an education, a bank

²³ Ibid

²⁴ Ibid, p.4

²⁵ Ibid

²⁶ Ibid

²⁷ Ibid, p.8

²⁸ Ibid

²⁹ Ibid, pp.17-18

³⁰ Ibid, p.18

account, a home magazine, listened to the radio, was an equal partner with her husband, and engaged in the 'great national work of keeping home and bringing up children'.³¹ Crucially, as he explained in his second treatise *The Neglected Partner*, attaining this vision of idyllic village life relied on family planning.³²

For Brayne, development and planning was as much about communication and education as it was about overall projects of large-scale economic and agricultural change. Not only would schemes of mass communication revolutionize village life, education was the key that would let people take advantage of the benefits of modernity. Both Brayne and Mukerjee argued that the wider social fabric that informed social practices and social life were key elements that would aid or hinder wider projects of social change, including fertility change. The study of attitudes and social change, and the idea that social change could be induced, rather than moulded by external forces, was a concept that was rapidly gaining traction in the post-war period.³³ The study of human behaviour, of attitudes and social norms, and crucially of how to create social change, had been expanding as social scientists increasingly sought to 'apply' their work and make it policy-relevant'.³⁴ Attitudes and attitude change had risen to centre stage in social psychology – and new disciplines such as behaviouralism, and research methodologies such as action research, were forming around the idea of not only studying attitudes, but understanding how to predict and change behaviour.³⁵

DEMOGRAPHY, DEVELOPMENT AND THE CAUSES OF CHANGE

In 1930, A.B Wolfe, writing the entry on demography for the *Encyclopaedia of Social Sciences*, described demography as 'a kind of bio-social book-keeping, a continuous inventory and analysis of the human population and its vital processes, collectively considered'.³⁶ By 1947, the definition of demography (this time in the *International Encyclopaedia of Social Sciences*) had substantially changed. Demography was still connected to the 'quantitative study of human populations' using the census, vital statistics and 'increasingly, sample surveys', and it still had as its core concerns 'bio-social book-keeping' - the measurement of birth, death, movement and growth in populations. However, the definition was also expanded in a significant way: 'A

³¹ Ibid

³² F.L Brayne, *The Neglected Partner* (London, 1949), p.14

³³ Corinna Unger, 'Family Planning – A Rational Choice' in Heinrich Hartmann and Corinna Unger, *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*, p.63

³⁴ Ibid

³⁵ Ibid; P.Brinol and R.E Petty, 'The History of Attitudes and Persuasion Research', in A. Kruglanski, W. Stroebe, (eds), *Handbook of Social Psychology*, (New York, 2012), p.286; Kurt Lewin, 'Action Research and Minority Problems', *Journal of Social Issues* 2:4 (1946), pp.34-46

³⁶ John C. Caldwell, 'Demography and Social Science', *Population Studies* 50:3 (1996), p.305

broader and increasingly popular usage of the term 'demography' included studies of demographic variables in their social as well as biological contexts'.³⁷ By 1949, this definition was becoming even more closely linked to society, with Kingsley Davis defining demography as 'a fundamental approach to the understanding of human society'.³⁸

The attempts of demographers to understand human society are, by the late 1940s and early 1950s, often seen to have been narrowing down to a focus on fertility patterns and fertility change. Demographic transition theory, a historical description of the change from high to low fertility and mortality, was by the 1940s being joined by a host of new theories of demographic transition – attempts to explain why and how this change occurred. This history of the changing formulations of demographic transition theory from the inter-war period to the 1950s has been extensively explored. In brief, demographic transition theory had been reformulated from its interwar origins during the 1940s, to position fertility as 'integral to the modernization process'.³⁹ Dudley Kirk, a demographer based at Princeton University, had predicted in 1944 that rapid population growth following declining mortality (in the 'western pattern') was going to spread throughout Asia. The solution, he argued, was to 'assist development in order to reduce birth rates...fertility would not begin to fall until peasants moved to cities, earned pay checks, and enrolled their children in school'.⁴⁰ Dudley Kirk's arguments embodied the 'classic' theory of demographic transition, which posited that high levels of population growth occurred during industrialization because fertility was 'uncontrolled and high' while at the same time mortality declined due to better access to food and a higher standard of living. These resulted, according to the theory, from the effects of the industrial revolution – including improvements in agriculture, transport, manufacturing and medicine.⁴¹

Classic transition theory argued that fertility fell only as a result of the 'cumulative mutually reinforcing spectrum of effects' that resulted from full-scale industrialization, which included a number of social changes – a growing culture of individualism, 'rising consumer expectations', the emergence of large urban populations, the 'loss of various functions of the family to the factor and the school', and the decline of 'fatalistic' patterns of thought.⁴² This was, in effect, an argument that fertility change occurred as the result of the widespread social

³⁷ Ibid, p.306

³⁸ Ibid, p.307

³⁹ Matthew Connelly, *Fatal Misconception*, loc.1606

⁴⁰ Ibid, loc.1685

⁴¹ Simon Szreter, 'The Idea of Demographic Transition and the Study of Fertility Change: A Critical Intellectual History' *Population and Development Review*, 19:4 (1993), p.662

⁴² Ibid, p.661

changes wrought by industrialization and urbanization.⁴³ This was, as Simon Szreter argues, an 'unabashedly evolutionary' theory. Though there was nothing 'historically inevitable' about it, the theory stipulated that to industrialize and modernize a country must pass through the stages of the demographic transition, and that fertility regulation marked the final stage, with the 'general spread of such behaviour [to regulate fertility] confirming the successful sociocultural adjustment to the conditions of a modernized, economically developed nation'.⁴⁴

One of the theory's most well-known proponents, the demographer Frank Notestein, who in the 1940s was the head of the Office of Population Research (OPR) at Princeton, found that the theory was eagerly received when he presented it, being has providing one of the 'much needed building blocks for social analysis'.⁴⁵ Szreter notes that the attraction of the theory doubtless lay in its ability to make sense of low fertility in many developed countries, locating it with a 'global historical pattern'. However, he argues, it was also beginning in the 1940s to be applied – as Dudley Kirk had done – to explanations about high fertility in developing countries, and that it was the 'policy application' of the theory that let to it receiving a far wider attention after 1944, and providing the 'impetus for its further elaboration' over the second half of the 1940s.⁴⁶

India, owing to the quantity and availability of data on it, featured prominently in the work of American demographers. In his article, 'Demographic Fact and Policy in India', Kingsley Davis – a demographer based at the OPR – argued that India's population presented the possibility of 'huge' growth, with 'even greater additions in the future'.⁴⁷ Davis' explanation for this came from transition theory – he argued that 'the forces of modernization' would eventually lead to societies addressing the gap between mortality and fertility that was leading to high population growth through a lowering of the fertility rate. The lag between fertility and mortality was, he argued, an outcome of the 'growing rationalization of modern life', which in India had derived largely from colonialism.⁴⁸ It was the impact of colonialism, he argued, that had led to India 'borrowing, rather than originating the cultural revolution that would led to low mortality and low fertility'⁴⁹ – though it was an incomplete revolution. Lowered mortality had resulted from famine control, public health, and the political peace of Pax Britannica. But,

⁴³ Ibid

⁴⁴ Ibid

⁴⁵ Ibid, p.663

⁴⁶ Ibid

⁴⁷ Kingsley Davis, 'Demographic Fact and Policy in India', *The Milbank Memorial Fund*, 22:3 (1944), p.265

⁴⁸ Ibid

⁴⁹ Ibid

owing to the exploitative effects of colonialism on the Indian economy, it had not yet achieved the 'internal structure that will motivate her citizens to reduce their fertility'.⁵⁰

These factors culminated in Davis' exploration of a population policy for India. He argued that a population policy was a 'deliberate attempt to modify an existing demographic trend for some ulterior purpose' – and because India's population growth was putting pressure on reaching national goals, a 'cessation of the present rate of growth was required'.⁵¹ Achieving this, he acknowledged, would be problematic. Allowing the death rate to rise would be untenable, and allowing greater migration to other countries politically impossible. Therefore, the only option left was the reduction of fertility.⁵² Davis' advocacy for a population policy in India was part of a larger set of arguments emerging about the demographic effect of modernization on society. Classic transition theory had established the link between fertility and broad patterns of change, but by the 1940s these links were becoming more refined.

By the mid-1940s, Notestein found himself at the head of a growing, and international, 'demand for theory'.⁵³ By 1945 economic and social planning had become more acceptable in America. They had acquired a new legitimacy as sites of official practice only after 'a prolonged period of empirical vindication in New Deal and wartime projects', but this experience had underlined to planners, and to demographers, the need to be able to make projections, and the importance of observation, measurement and the validation of statistics.⁵⁴ This growing acceptance of planning was joined by a renewed interest in the economic implications of demographic change and, finally, by the needs and ambitions of post-war reconstruction.⁵⁵ It was in reconstruction in particular that transition theory found its niche. Offering an 'appropriately scaled historical model' of change, it indicated (or appeared to indicate) how colonial societies 'could be placed into a rank-ordered typology' of economic and demographic characteristics. Thus ranked, countries could be related back and compared to industrial nations, and a 'prognosis for future development' could be indicated.⁵⁶ Like Davis, Notestein looked to India when thinking about demographic transition – comparing India's lack of development to the comparative success story of Japan.⁵⁷ Also like Davis, he looked to colonial exploitation to provide an explanation for India's demographic situation. Whatever changes that had occurred as a result of being a colony, he argued, had not been enough to change

⁵⁰ Ibid, p.269

⁵¹ Ibid, p.272

⁵² Ibid, p.274

⁵³ Simon Szreter, 'The Idea of Demographic Transition and the Study of Fertility Change', p.664

⁵⁴ Ibid

⁵⁵ Ibid, pp.664-665

⁵⁶ Ibid, p.665

⁵⁷ Ibid, p.666

society to the point of altering fertility behaviours.⁵⁸ However, unlike Davis, he went into more detail about the solution: for India to gain its autonomy and to establish a 'market economy and democratic society', which would lead to a change in fertility.⁵⁹ This formula for demographic change in the underdeveloped countries had, Szreter argues, a 'great appeal to the New World's post-war reconstructionist planners'.⁶⁰ Advocating American 'liberal democratic and political economic practices' the theory appeared to establish the institution of American-style 'liberal and democratic ground-rules' as a 'necessary precondition for entering the evolutionary path of transition'.⁶¹ However, while the mid-1940s formulation of democratic transition theory as expressed by the OPR demographers offered a powerful and compelling theory of social change and development, it was not accepted wholesale by Indian demographers, who had their own spin on the relationship between colonial exploitation, development and population. Formed in conversation with these American ideas, they nevertheless did not uncritically reproduce them.

One such set of arguments was made by Sripati Chandrasekhar, an Indian demographer who had come to America for his doctoral study and was in close connection with the developments occurring in American demography. When Chandrasekhar first applied to study in America he drew on contracts that existed between American and Indian academics studying statistics.⁶² He was put in touch with economists at the University of Chicago, Columbia University, and New York University, all of whom were interested in the connections between economics, population growth and food production.⁶³ These were the same issues that had risen to prominence in discussions about population in India, and Chandrasekhar's PhD application proposal demonstrates the extent to which he had been influenced by these arguments. He proposed to study the 'dynamics of population change in India in relation to the total available resources', and wanted to start by exploring the causes contributing to growth, as well as to provide a projection of growth for the next twenty to thirty years. All of this would be in order to make a reliable food plan, providing the 'basis of a balanced diet' for both the present and projected population.⁶⁴

The current ability of India to produce food also featured heavily in his proposal; he wanted to explore the reasons for the wide gap between the total food required and the total

⁵⁸ Ibid, p.667

⁵⁹ Ibid

⁶⁰ Ibid

⁶¹ Ibid, p.668

⁶² General Correspondence MSS-189 B1/F1 [The Ward M. Canaday Center, University of Toledo, hereafter UofT]

⁶³ Letter Oscar Large to Unknown, 14th January 1941, MSS-189, General Correspondence, B1/F1 [UofT]

⁶⁴ Untitled, General Correspondence MSS 189, B1/F1 [UofT]

food produced. Finally, he included as part of his proposal a 'Population and Food Policy for India' which would cover a projected ten years and explain how to increase food productively while also 'limiting the growth of population through means acceptable to their cultural milieu'.⁶⁵ This would include understanding how sanitation, hygiene and access to medical facilities had lowered the death rate, and the effect that could have 'on the growth of population and the consequent need to control the birth rate in the initial stages of the population policy'. He linked this directly to raising standards of living, stating that once increased standards had been made possible, 'the individual family may be expected to become jealous of the its rising level and maintain it, if not raise it further, by curtailing the number of children'.⁶⁶ These arguments clearly place Chandrasekhar's early population thinking in the context of wider trends he would have had access to. Arguments about the links between food and population had been made throughout the twentieth century, but their incorporation into arguments about family size limitation and standards of living were emerging in his largely contemporary context.

However, it was the arguments he made while completing his PhD that put him into direct conversation with the emerging framing of demographic transition theory in the mid-1940s. In 1943, he published an article in *Pacific Affairs* examining the question of overpopulation in India. Whether or not India could be considered overpopulated was a question that many had asked, he noted, and arguments were made for both sides.⁶⁷ Certainly, there was evidence that India's population was growing – the rate of growth between 1921 and 1931 had been 10.6%, rising to 15% between 1931 and 1941. And yet, this rate of growth was no higher than Americas, which had been 15.7% in 1931.⁶⁸ Looking to the question of India's population density, he noted that while it was clear there was 'pressure on the land', this was true for many other countries as well. The problem was not of the density of population per se, but rather of problems specific to Indian agriculture – the subdivision of the land, 'primitive methods of farming', and a 'quasi-medieval land-tax system'.⁶⁹ It was these problems, he argued, not density, that had produced the 'landless and impoverish proletariat' that so troubled 'statesmen and economists'.⁷⁰ The argument that landless labourers were an indication of population pressure – as Gyan Chand had argued – was a mistake. The increase in

⁶⁵ Ibid

⁶⁶ See Untitled, Undated, In General Correspondence MSS 189, B1/F1

⁶⁷ Sripati Chandrasekhar, 'Population Pressure in India', *Pacific Affairs* 16:2 (1943), p.166

⁶⁸ Ibid, p.166

⁶⁹ Ibid, p.167

⁷⁰ Ibid, p.168

the 'agricultural proletariat' was not due to population pressure, but to the problems of agricultural development and the lack of industrialization.⁷¹

Looking to the relationship between population growth and per capita income revealed a similar story. While many argued that per capita income and population worked in an inverse relationship (such that few people would lead to a higher per capita income), Chandrasekhar challenged this. Per capita income, he argued first, was not a good index of the standard of living. Neither did it mean that the economic welfare of the people had increased – wealth could instead have been concentrated in the hands of a few, leaving the majority to become poorer.⁷² India's per capita income figures – which, even by the most optimistic estimate were as low as 10 cents per day - indicate the extent of India's poverty, but this was not, he made clear, because of growing numbers.⁷³ Chandrasekhar's investigation of the other indices of overpopulation (life expectancy and economic welfare) revealed the same conclusions - what many were linking to 'overpopulation' was in fact a problem of poverty. The question then, he explained, was 'not one of overpopulation versus under population, but one of appalling poverty'.⁷⁴ The 'way out' was – much as was being argued by the transition demographers – through the improvement of agriculture, industrialization, emigration, and birth control. However, these were not intended as means to lead to fertility reduction. Instead, they were means to reduce the level of poverty. India's large population was – under the right conditions – an economic asset: a large population provided a 'rich reservoir of labour' as well as a large domestic market.⁷⁵ Economic freedom – but most importantly, political freedom – was the key.⁷⁶

SAMPLE SURVEY AND THE POPULATION PROBLEM

The debates about population and its relationship to processes of change made by demographers in the 1940s reveal one aspect of how population was being linked to arguments about economic development and national planning. However, population was also linked to these factors through the problem of the data - particularly the problem of generating data for policy-making. In 1950, the main source of data about population was the census. However, new forms of data collection were beginning to emerge which would also have a significant impact on how the population problem was conceived. Population projection had been established as an important administrative tool in the context of national planning, but the

⁷¹ Ibid, p.169

⁷² Ibid

⁷³ Ibid, p.171

⁷⁴ Ibid, p.180

⁷⁵ Ibid, p.184

⁷⁶ Ibid

question of how – and from where – to collect the correct data remained. Arguably the most significant statistical programme undertaken by the Government in the post-war period, the National Sample Survey (NSS) had begun to investigate the best way to gather this ‘representative’ data.

The NSS was intended to address many of the problems that had been raised in the 1940s over statistics and the issue of accuracy. To do this the NSS drew on the demographic expertise of the Gokhale Institute of Politics and Economics for help with designing the surveys that would be used for the NSS’s research.⁷⁷ The short-lived collaboration between the NSS and the Institute, lasting for only one year (1950-1951), illustrates the significant differences in approach to population data that had already emerged between the Government and the research institutes by the early 1950s. Characterized by frequent conflicts between Gadgil and Mahalanobis, the key issues remained those of what data to collect, how to collect it, and who had the relevant expertise, but also touched on larger organization and governmental concerns over whether data collection should be centralized in a dedicated agency, and if large-scale data collection was useful at all.

Designed to collect data on population and socio-economic characteristics from a nation-wide sample, the NSS expanded on and implemented ideas that had been raised by the various Committees, particularly the 1946 report of the Health Survey and Development Committee – which had recommended the ‘continuous study’ of the population.⁷⁸ Conducting studies broadly categorized as demographic and socioeconomic, agricultural, and industrial, the survey used a multi-sample survey approach taken on a continuous basis through survey ‘rounds’. Rounds tended to be one-year long, lasting from July to June so they matched the agricultural year.⁷⁹ During each round, topics ‘of current interest in a specific survey period’ would be covered. The extent of this cover was determined in large part by the available resources and user requirements of the period.⁸⁰ It was hoped that this process would perform, among other things, a ‘gap filling’ service for the Government, providing ‘essential statistics’. The NSS was compared favourably to the census, with its proponents arguing in favour of the methodological accuracy of sampling, as well as the cheaper and faster results it could generate.⁸¹ Sampling, as a data-collection method, had been recommended for use in India since

⁷⁷ *The National Sample Survey, General Report No.1*, pp.5-6

⁷⁸ Philip Hauser, Otis Dudley Duncan, *The Study of Population*, p.154

⁷⁹ M.N Murthy, A.S Roy “Development of the Sample Design of the Indian National Sample Survey during its First 25 Rounds”, in Martin Bulmer, Donald B Varick (eds) *Social Research in Developing Countries: Surveys and Censuses in the Third World* (Chichester, 1983) p.110

⁸⁰ “Appendix V: Case Study Indian National Sample Survey 1964-65”, in Ranjam K. Som, *Practical Sampling Techniques, Second Edition* (New York, 1996), p.539

⁸¹ *The National Sample Survey, General Report No.1*, p.2

the 1930s.⁸² The idea was to collect data from a relatively small number of locations that could then be used to create estimates for the country as a whole. The sample locations – particularly for the demographic and sociological studies – overwhelmingly focused on the household as the source of data, which were to be chosen at random to ensure overall representativeness.

The process of selecting random sample villages caused the first major difficulties in the NSS-Gokhale Institute relationship. Initially, the plan had been to select sample villages from large-scales maps, thus producing a geographical range spanning all of India. However, the lack of availability of maps caused serious setbacks for this plan: maps were not centrally located in any of the States, and what maps were available did not cover the country equally.⁸³ Having ruled out sampling on this basis, the NSS turned to village lists and the ‘population of individual villages’.⁸⁴ Again, the lack of uniformity between the different States with regards to ‘both population and area figures of individual villages’, many of which were simply unavailable, produced significant problems. The NSS found that, for 5.6% of India, there was no data on population size, geographical location, or even village name – this information had to be gathered on site by enumerators at a later time.⁸⁵ There were also more deep-seated methodological differences over how the study as a whole should be conducted. V.M Dandekar, one of the senior Gokhale Institute statisticians, argued that a sample design based on a half-square mile grid was too artificial, that the questionnaires drafted by the Indian Statistical Institute were too complicated, and that the investigators were assigned too short an amount of time in each village.⁸⁶

The eventual outcome of these different approaches was the agreement that data collection in the villages would be conducted according to two prepared schedules: the Indian Statistical Institute or ‘Calcutta Schedules’, to be used for 4 of the six villages in each sub-divided block, the Gokhale Institute or ‘Poona Schedules’, to be used for the remaining two villages. Both were interested in the demographic and economic characteristics of the villages. The chief difference between the approach of the Poona Schedules compared to the Calcutta Schedules was the site under study. While the ISI looked at more villages (1186 in total), the Gokhale Institute collected comprehensive information for more households; gathering data

⁸² In 1934 A.E Bowley and D.H Robertson as part of their investigations into rural areas in British India recommended conducting a sample survey of 1650 villages. *The National Sample Survey, General Report No.1*, p.2

⁸³ Ibid, p.5

⁸⁴ Ibid

⁸⁵ Ibid, p.6

⁸⁶ V.M Dandekar, *Report on the Poona Schedules of the National Sample Survey 1950-51*, (Poona: 1953), p.17

from 9201 households in total.⁸⁷ Statistically speaking, Gadgil argued, the information collected through the Poona Schedules was much more valuable. This emphasis on the village as the proper unit directly affected how Gadgil believed data should be collected. He argued that repeated visits by the investigator were critical, and that investigators should have good local knowledge, command of the local language, and be familiar with the local rural background, in addition to being trained in investigative work. These were the chief reasons why Gadgil had argued for a separate schedule in the survey.⁸⁸

Establishing the organizational structures and necessary manpower needed for conducting such a wide-ranging survey was also a source of tension. Though the Indian Statistical Institute and the Gokhale Institute had the expertise required to work with the data once it was collected, organizing the actual collection of the data was another matter. The State governments were charged with filling the posts of Assistant Directors Superintendents of fieldwork throughout India.⁸⁹ Finding enough people to conduct the fieldwork required advertising the position in newspapers and seeking employees through the Government employment exchange. Training was provided by both gazetted and non-gazetted officers, who had themselves received only a three-week training course at the Indian Statistical Institute in Calcutta. The low pay and temporary job status made it difficult for the NSS to recruit enough workers, and by October 1950 at the start of the survey only 40% of the needed staff had been recruited. The remaining 60% were recruited, trained and appointed over the following five weeks.⁹⁰

The first fieldwork for the NSS was conducted in 1950-51, and covered approximately 1833 villages, fifty towns and four cities. Reaching the villages to conduct the interviews was a process that could range from difficult to dangerous – for example getting to Kalahandi, in Orissa, required the investigators to be accompanied by armed guards while travelling through over twenty miles of ‘wild forests’; others had to take extensive detours to avoid hills and swamps,⁹¹ to wait until winter snows had melted, or travel into tribal areas.⁹² In some cases,

⁸⁷ The main difference, Gadgil contended, was that while the ISI covered more net households, they did so using less detailed schedules, gathering detailed information only for a limited sub-sample of households, rather than all households in the villages they surveyed. Of the 1833 total villages selected for the NSS, the Gokhale Institute had been assigned 644, surveyed 609, and submitted results for 585. See D.A Gadgil, “Foreword” in V.M Dandekar, *Report on the Poona Schedules of the National Sample Survey 1950-51*, (Poona, 1953), p.iii

⁸⁸ Ibid, p.iv

⁸⁹ *The National Sample Survey, General Report No.1*, p.6

⁹⁰ Ibid, p.9

⁹¹ Ibid, p.8; D.B Lahiri, *National Sample Survey No. 5, Technical Paper on Some Aspects of the Development of the Sample Design*, (Government of India, 1954), p.8

⁹² *The National Sample Survey, General Report No.1*, p.8

villages were connected by roads, trains and bus routes, but in other areas investigators were reliant on walking, or catching a lift on a bullock cart where possible.⁹³ The sometimes sensitive nature of data collection presented its own set of problems for the investigators, and was the cause of another major rift between the NSS and the Gokhale Institute. Interviewers were provided with books 'containing detailed instructions as to how to approach the respondents and what was meant by the various questions'.⁹⁴ The major problem, the NSS Report suggested, was not that the villagers interviewed were not forthcoming in their responses, but rather that there was no way for the interviewer to verify the answers, particularly in the case of first-time investigators.⁹⁵ Gadgil argued, however, that the Institutes were not familiar enough with the rural conditions, and that the schedules – including the Poona Schedule – did not allow the investigators to establish 'contacts in the proper way with the respondents'.⁹⁶ This was compounded by the fact that while the results were recorded in English, the interviews were necessarily conducted in the vernacular. While care was taken to ensure that the exact meaning of the questions and answers was conveyed, the fifteen languages in which the National Sample Survey was conducted rendered that a complex task.⁹⁷

In their report on the NSS, the Gokhale Institute argued that the main reason for the failure of the Gokhale Institute and Indian Statistical Institute to reach agreement on the Schedules was 'the proposal to load the schedules by including as many items as possible' which, they maintained, may have been politically expedient, but was 'surely not a sound investigational procedure'.⁹⁸ Writing to P.C Bhattacharya and Mahalanobis on the 21st January 1951, Gadgil outlined his position regarding the NSS. 'We are not getting or are not likely to get in the immediate future, through the National Sample Survey, as at present conducted, information which is reliable enough for the purpose for which it is intended to be used'. Ultimately, he cast doubt on the project as a whole: the fundamental problem was the relationship between the state and statistics. 'The main difference of opinion between us centres round the issues', Gadgil wrote to Mahalanobis. These issues were primarily related to the quality of data that was being collected – 'I do not share your view that mere statistical examination of any mass of data collected by such methods as those followed in the National Sample Survey will enable one to judge adequately the reliability or otherwise of original

⁹³ D.B Lahiri, *National Sample Survey No. 5*, p.8

⁹⁴ *The National Sample Survey, General Report No.1*, pp.9-10

⁹⁵ *Ibid*, p.10

⁹⁶ Letter, D.R Gadgil to P.C Bhattacharya and P.C Mahalanobis, 21st January, 1951 in V.M Dandekar, *Report on the Poona Schedules of the National Sample Survey*, pp.204-205

⁹⁷ *The National Sample Survey, General Report No.1*, p.10

⁹⁸ V.M Dandekar, *Report on the Poona Schedules of the National Sample Survey*, p.63

responses'⁹⁹. Gadgil pointed to the significant difference in the priorities of the Institute and the NSS:

I suppose views on this matter depend substantially on what one expects the National Sample Survey to do. So far as I can judge the National Sample Survey at best can yield fairly reliable information regarding certain national aggregates. By themselves, these national aggregates cannot form the basis for policy formation. For policy formation you require, not the National aggregates, but much more of the detailed information concerning specific regions and activities...as long as detailed information is not available, National aggregates by themselves would prove of little use for policy formation or for judging of its implications.¹⁰⁰

The relationship between the state and statistics, and the question of what information was needed for policy making, was also being taken up by research institutes in the 1950s. Chandrasekhar had established his own demographic research institute, the Indian Institute for Population Studies (IIPS) in 1950 to address precisely these issues. The capacity for demography to offer a 'solution' to the population problem formed the intellectual framework of the IIPS. In his inaugural speech, K.M Panikkar, then the Indian Ambassador to China, outlined what he believed to be the nature of India's population problem and the role of demography in dealing with it, emphasizing the 'state of infancy' of demography as a discipline in India, and stressing the importance of the scientific study of population. Panikkar directly linked colonial and post-colonial politics to population. 'The very future of our country as a progressive, independent nation' rested on how India dealt with the population problem, he argued.¹⁰¹ Panikkar's understanding of the population problem was tightly linked to food and the spatial distribution of people throughout India, a situation made much worse by partition, but he also considered fertility, mortality, 'rural-urban differentiation' and 'the possibility of an artificial control of the birth rate' as key aspects of the problem.¹⁰² Most significantly, he drew a straight line between demographic 'facts' and Government policy-making. 'The main difficulty', he argued, 'lies in establishing a factual groundwork based on detailed study'.¹⁰³ Though he

⁹⁹ Letter, D.R Gadgil to P.C Mahalanobis, 10th February 1951 in V.M Dandekar, *Report on the Poona Schedules of the National Sample Survey*, p.208

¹⁰⁰ Ibid

¹⁰¹ K.M Panikkar, 'Population Problems: An Address' (1950), IIPS Promotional Flyers and Information, B54/F21 [UofT], p.9

¹⁰² Ibid

¹⁰³ Ibid

noted that the census department had been recently established on a permanent basis, he argued that collect 'raw data' alone was not enough: 'A solution of our problems will become easier only when trained researchers take up different aspects of the problem and study them with scientific accuracy'.¹⁰⁴

MOVING INTO THE FIELD

The Gokhale Institute of Politics and Economics was also conducting research into fertility. Their early experiences illustrate the difficulties involved in taking up and studying the population problem. Not only did researchers face new difficulties regarding the relationship between data gathering practices and the investigators collecting the data, they also found themselves needing to 'prepare the ground' in order to get a response. In 1952 N.V Sovani completed *The Social Survey of Kolhapur City*. One of the first large-scale demographic studies undertaken by the Gokhale Institute, the study illustrates the problems researchers encountered, even before they started to collect their data. One of the first difficulties was the need for women investigators.¹⁰⁵ While the other two branches of the study – into industry, trade and labour, and family living and social life – were conducted by male investigators, it was believed that the only way to gather reliable data on fertility from women was to use female investigators. The role of women in the research was felt in two other ways: women social workers were needed to help drum up public opinion and sympathy for the study; and a council of women from Kolhapur City was required to give the survey social legitimacy.¹⁰⁶

The survey had secured, 'from the very start', the help of a group of women social workers who were instrumental in 'educating public opinion' about the purpose of the survey and rousing enough sympathy for its aims that data could be collected.¹⁰⁷ Ten female primary teachers were recruited and trained to conduct the survey, and seven prominent women from Kolhapur City agreed to sit on a Committee to 'help ensure public response'.¹⁰⁸ The methodological problems were more standard – there were two choices of survey: one which took an extensive fertility history irrespective of age data, but was prone to errors; and another

¹⁰⁴ Ibid, p.7

¹⁰⁵ The gendered aspect of fertility research was further illustrated in the comparison of schedules. Because the family life schedule and the fertility schedules largely overlapped, questions about the family were stripped from the fertility questionnaire to make it shorter. However, the family life questionnaire was directed towards male members of family, and conducted by a male investigator. The fertility survey, by contrast, though taken in the same household, targeted only female members of the family, and was conducted only by women investigators.

¹⁰⁶ N.V Sovani, *The Social Survey of Kolhapur City: Part 1 – Population and Fertility* (Poona, 1948), pp.35-38

¹⁰⁷ D.R Gadgil, 'Foreword' in N.V Sovani, *The Social Survey of Kolhapur City*, p.iv

¹⁰⁸ N.V Sovani, *The Social Survey of Kolhapur City*, p.36

which surveyed women in particular reproductive age groups and had the advantage of being both shorter and more accurate.¹⁰⁹ Accuracy, however, remained a pressing concern, and the survey deployed new techniques to try to ensure they had the best possible results. One of the major problems, Sovani explained, was that fertility surveys relied heavily on accurate age data, which was notoriously unreliable. This was not because people were trying to mislead investigators, Sovani elaborated, but resulted instead from 'sheer ignorance'.¹¹⁰ To counter this, Sovani employed a technique that had been trialled a year previously, intended to generate an accurate measurement for age by relying on people's subconscious memories.¹¹¹ This method was based on the theory that people subconsciously associated major events in their lives with major events in their wider environment. Thus, while people 'might not bother to remember' the age they were when they got married or had a child, they would associate that event with something significant that had happened in the wider world.¹¹² To this end, Sovani had the Committee of women draw up a list of important events that had occurred in the City for the previous half century, and issued it to the women investigators to use as a reference.¹¹³

The IIPS was also beginning to conduct its own field research. While the IIPS's rhetoric – both in terms of Panikkar's opening address as well as expressed by early members of the Institute – was frequently India-wide, and indeed international, the referential space of the IIPS was significantly smaller. The first studies conducted by the Institute in the 1950s took place in villages local to it, and it was these villages that formed the geographical-population links on which the 'facts' were produced by the IIPS. Early studies into demography and family planning practices carried out in India tended to focus on aspects of local practice – for example, the 1951 'Socio-Medical Survey on Practice of Birth Control by Medical Men'.¹¹⁴ Conducted as a mail-questionnaire, the survey attempted to ascertain the birth-control practices of medical men in Uttar Pradesh. The sample size was relatively small, with only 189 replies to the 1,000 questionnaires distributed.¹¹⁵ Chandrasekhar was conducting a number of these early attitude surveys. In 1952, during the early days of the IIPS, he published *Attitudes of Baroda Mothers towards Family Planning*.¹¹⁶ Interviewers were instructed to, when giving their answers, write

¹⁰⁹ The detailed survey, Sovani noted, was particularly problematic when trying to average the data over a period of up to 70 years. Ibid, p.35

¹⁰⁹ Ibid

¹¹⁰ Ibid

¹¹¹ The method had been used in the *Socio-economic Survey of Weaving Communities in Sholapur Area* (1947), N.V Sovani, *The Social Survey of Kolhapur City*, p.36, citation 1

¹¹² Ibid

¹¹³ Ibid

¹¹⁴ Kamala Gopal Rao *Studies in Family Planning: India* (New Delhi, 1974), p.146

¹¹⁵ Ibid

¹¹⁶ Ibid

in English and 'if any answer is vague or doubtful', to 'write down the answer, as given and mark it D. In case any answer sounds misleading or obviously incorrect (for example age of the person interviewed), put down your impression along with the answer supplied and mark with I'.¹¹⁷ The interview sheet opened with the statement:

This enquiry is sponsored by the M.S University of Baroda. The information supplied will be treated as strictly confidential, and no names will be divulged. The information will be used for academic and scientific purposes only. For any useful reforms the community or Government must know basic facts, for without them no policy can be formulated. You are requested to co-operate with the interviewer.¹¹⁸

The survey asked questions, directed to women, about age, name, mother tongue, religion, occupation, income, education and family size of both 'husband and wife' being interviewed. It also enquired as to whether those interviewed were living in a 'joint family', the age at which the woman first menstruated, when they were first married, and how old the woman was when she first had children. It asked what ages any living children were, if any children had died, what they died of, and whether the woman had had any abortions. It asked what the cause of the abortions was, and how long mothers nursed their children, if they wanted more children (or if not), and how many were either desired or permitted by health and economic reasons. It asked if parents would like to limit the number of children, if they had attempted to do so, and when these attempts had taken place. It explicitly requested the husband's views on birth control, and asked, in the case that no more children were desired at all, 'would you prefer an operation on yourself (salpingectomy); or a minor operation on your husband (vasectomy)?',¹¹⁹ and concluded with asking 'Would you prefer contraceptives for yourself or for your husband?'.¹²⁰

Going out into the field had opened up new avenues for fertility research – attitudes and motivations, deemed central to the formulation of a population policy – were new kinds of data, not collected by the census, and opened up a new understand about population. Field research was also receiving a boost from growing international interest. The Rockefeller Foundation had begun to support demographic research on population in India, and had funded the creation of a Section in Demography at the Gokhale Institute. Opening in 1951, the Section's first research projects were a continuation of the ground broken by Sovani, conducting preliminary investigations into urban, suburban and rural families and exploring 'fertility,

¹¹⁷ A Social Survey of Baroda, 1952, IIPS Miscellaneous, B54/F19

¹¹⁸ Ibid

¹¹⁹ Ibid

¹²⁰ Ibid

mortality and their economic and social correlates'.¹²¹ The Section was also expanding its research aims, and was beginning to investigate attitudes towards contraception in both rural and urban areas.¹²² Davis, who had arrived in India for the first time early in 1952, travelled for a number of weeks meeting with Indian demographers and touring some villages. Attending a session of the Planning Commission, he was gratified to find that many members had read his book.¹²³ However his own foray into the field proved particularly inspiring. The village visits were a particular highlight, and convinced him that the time was right for demographers and demographic research to move away from collection of survey data and to focus on research that would lead to action.¹²⁴

PLANNED PARENTHOOD AND POPULATION POLICY

The research projects undertaken in the early 1950s, though highly local in practice, were part of a much larger international concern that was increasingly focused on the fertility of the Third World, and on Indian fertility in particular. Not only had many of the demographers, economists and other social scientists working on population in India been trained abroad, international organizations such as the UN and the Foundations were actively involving themselves in these attempts to understand, and hopefully change, the rate of population growth. Research carried out in the early 1950s combined different aspects of the debates over population, data and society. The problem of where and how to collect data, in addition to what data should be collected, shaped much of the early research. Many of the research projects conducted on fertility and family planning combined an empiricist approach with an educational one – seeking both to learn about fertility as well as to teach people first to care about it, then to modify it.

Others were also using population surveys as a platform to call for population policies and birth control. Kingsley Davis had published his wide-ranging study, *The Population of India and Pakistan* in 1951, a few months before work began on the census. It was, he argued, an attempt not only to look at the problem of overpopulation, but also to explore 'social organization and social change' – as much a sociological study as a demographic or economic

¹²¹ V.M Dandekar, K. Dandekar *Survey of Fertility and Mortality in Poona District* (Poona, 1953), p.13

¹²² Ibid

¹²³ Kingsley Davis to Roger F. Evans, January 30th 1952 RG.1.1/S200/B318/F3779, Rockefeller Archive Center (hereafter RAC)

¹²⁴ India: Kingsley Davis, January 14th 1952 RG.1.1/S200/B318/F3779 [RAC]

one.¹²⁵ Part of his project was to determine the causal relationships between the variables affecting population and 'arrive at predictive conclusions'. Applying social theory to India's demographic data would allow researchers to explore, and answer, questions about the social forces that governed birth and death rates, how these might change in the future, how demographic trends impacted on society and standards of living, and what social plans would be put in place to 'avoid undesired consequences'.¹²⁶

Davis returned to these questions at the end of his study, exploring population policy. Population policies were a necessity, he argued, because population growth was a clear and inescapable detriment to economic and agricultural development. No matter how much those sectors could be made to grow, unless population growth was controlled it would outstrip them both. The question that needed to be urgently addressed in India, he argued, was whether the change in attitude that 'naturally accompanied' the fertility transition from high to low fertility could be 'induced more quickly'.¹²⁷ 'If fertility is going to be lowered soon', he stated, 'it will only be through some strong and unique policy'.¹²⁸ Davis outlined two possible methods that might result in a quick reduction of fertility – to bring birth control to people, or to 'industrialize overnight'.¹²⁹ What was ultimately needed, he concluded, was a population policy that encouraged industrialization, put controls on emigration (to limit brain-drain and loss of capital), and vigorously promote birth control through 'films, radio, ambulatory clinics, and free services and materials'.¹³⁰ This was all to be supported through research into contraceptive technologies and techniques, as well as into 'methods of mass persuasion'.¹³¹

Some of the most prominent early advocates campaigning to spread information about contraception and to raise awareness about family limitation were non-official organizations. While organizations like the Gokhale Institute and the IIPS were working to understand fertility in its social and demographic sense, others such as the Family Planning Association of India (FPAI) were campaigning to raise awareness of family limitation and cultivate 'a new sense of responsibility towards parenthood'.¹³² The FPAI had been closely involved the work of the Planning Commission in 1950; two of its members, The FPAI President Dhanvanthi Rama Rao and Avabai Wadia were invited as representatives to the Advisory Panels, and strongly

¹²⁵ Kingsley Davis, *The Population of India and Pakistan* (Princeton, 1951), p.3

¹²⁶ Ibid, p.4

¹²⁷ Ibid, p.226

¹²⁸ Ibid

¹²⁹ Ibid

¹³⁰ Ibid, p.230

¹³¹ Ibid

¹³² Avabai Wadia, 'The Family Planning Programme in India: The Non-Governmental Sector', *The Journal of Family Welfare*, S5/SSG/B50/F25 [UofT], p.16

advocated family planning as a national plan.¹³³ The FPAI began to more actively promote and support family planning research – hosting the First All-India Conference in 1951. However, it was their next conference, convened at the suggestion of Margaret Sanger that ‘proved to be a milestone in the advancement of family planning work in India and the world’.¹³⁴

In November 1952, the FPAI was host to the third International Conference on Planned Parenthood, held in New Delhi. Nearly five hundred delegates representing fourteen countries were attending.¹³⁵ Nehru’s message to the conference was relatively subdued – population needed to be limited, but by itself this ‘would not solve social and economic problems’.¹³⁶ Other responses were more positive. Harnessing scientific and technological developments for human betterment promised rich rewards.¹³⁷ The vice-president of India, Sarvepalli Radhakrishnan, gave the inaugural speech. ‘It is essential’, he argued, ‘that there should be some system of planning of families’ – for health, to lower the infant mortality rate, and to address the ‘social aspect’ of the problem.¹³⁸ Radhakrishnan related the population problem to goals of the welfare state, arguing that while the national aim was for children grow into ‘healthy, happy, responsible citizens’, it was not something the state was in a position to give.¹³⁹ The answer therefore lay in population limitation. ‘The duty which human individuals have’, he argued, ‘is to find out what the social needs are, what the physical needs are, and what the spiritual needs are, and try to fill them’.¹⁴⁰

The need to find out what the ‘social needs were’, as well as ways to fill them, was addressed by a number of speakers at the Conference. Chandrasekharan discussed work that had so far been carried out as part of the UN-Government of India sponsored ‘Mysore Study’. The study was investigating the ‘inter-relationships of population, economic and social changes’, and involved detailed investigations into attitudes and motivations concerning fertility in Mysore state.¹⁴¹ Getting at attitudes on fertility required asking a series of probing questions – women who indicated that they did not want more children were asked if this was due to economic difficulties, because she could not give her current children the things she felt

¹³³ Ibid

¹³⁴ Ibid, p.17

¹³⁵ Matthew Connelly, *Fatal Misconception*, loc.2265

¹³⁶ Ibid

¹³⁷ ‘Birth Control Not Ethically Banned For Social Welfare: Dr. Radhakrishnan urges India’s population control’ *The Times of India* November 25, 1952

¹³⁸ S. Radhakrishnan, *Planned Parenthood* (New Delhi, 1969), p.9

¹³⁹ Ibid, pp.9-10

¹⁴⁰ Ibid, p.12

¹⁴¹ C. Chandrasekharan ‘Cultural Patterns in Relation to Family Planning in India’, p.73

she needed or wanted to,¹⁴² because her quality of life had decreased, or because further pregnancies would damage her health.¹⁴³ Similar questions were asked of women who either wanted more children, or who were 'indifferent'.¹⁴⁴ The section of the greatest interest to Chandrasekharan, however, was the one concerning family limitation practices. He was particularly interested in the practices of women who desired not to have any more children, but who were not practicing any method of family limitation – these women were questioned about their choices and actions in detail¹⁴⁵. The value of this kind of study, Chandrasekharan explained, was that it outlined the 'existing readiness of the people to accept the idea of family planning'.¹⁴⁶ It further illustrated where efforts at family planning education should be directed, 'to promote the idea' of family limitation. However, if family planning practices were going to be successfully 'introduced into specific communities', then more detailed data was required.

An attempt to convince people to adopt family planning had been undertaken in a joint Government-WHO study, led by Dr. Abraham Stone, on the rhythm method of family planning. The rhythm method – which worked by identifying 'safe periods' where conception was least likely - relied on understanding in detail the 'pattern of sex life' in the community.¹⁴⁷ It was believed that traditional cultural practices acted as limiting factors on a couple's sex life, and the survey undertook to gather hard data on them. Despite their intensely personal nature 'no serious resistance' to the questionnaires was recorded, a factor put down to the good relationship between the interviewers and the respondents. The results of the survey, Chandrasekharan underlined, emphasized the importance of understanding cultural conditions when developing a family planning program. Not only were many of their initial assumptions about the limiting factors of traditional behaviour wrong, the survey made clear how previously overlooked factors – such as traditions surrounding menstruation – were highly significant in shaping behaviour.¹⁴⁸ While Chandrasekharan and Stone had been conducting research on behalf of the Government and international organizations into family planning practices and attitudes, Chandrasekhar used his survey as a platform to exhort them to greater action. He presented research conducted on the attitudes towards family planning of Baroda mothers. The survey was entirely oriented around gathering the 'basic facts' that were needed for policy-

¹⁴² These included education, and being able to meet the marriage expenses of daughters. Ibid, p.75

¹⁴³ Ibid

¹⁴⁴ Ibid

¹⁴⁵ The report records that women were asked to provide at least '10 possible specific reasons' explaining why they were not using a method of family limitation, despite their stated preference to have no more children. Ibid

¹⁴⁶ Ibid

¹⁴⁷ Ibid, p.77

¹⁴⁸ Ibid

making by establishing the links between fertility rates and attitudes to contraception.¹⁴⁹ Asking the standard demographic questions about family characteristics, the survey also requested information on fertility, asking about the desire for children and family limitation practices.

Presenting his results, Chandrasekhar emphasized the utility of this kind of research for policy-making and for tapping in to public opinion. 'Governments are usually slow in appraising the needs and grasping the attitudes of the public' he argued, 'with the result that [they] defer introducing reforms for which people are ready'.¹⁵⁰ The utility of these surveys for policy-making had also been stressed to the interviewers, as well as to those being surveyed – demographic facts gathered through research were, they were informed, the basis on which useful Government reforms were founded. It was on this basis that 'co-operation with the interviewer' was requested.¹⁵¹ Chandrasekhar argued that the solution to the population problem was based in research, which provided 'a way out of this difficulty caused by not being sure of what the public wants'. Surveys of attitudes and measurement of public opinion, 'on important and sometimes controversial questions'¹⁵² were, he explained, part of a larger tradition of attitude polling that had been carried out in the Gallup polls in America and the Mass Observation polls United Kingdom.¹⁵³ These surveys should not be conducted by the state, which could be interpreted as introducing bias. Instead, they should be carried out by non-official agencies and academic institutions which would provide an 'objective and impartial view' on public issues.¹⁵⁴ The Conference concluded in an air of hopefulness. 'All the clichés – for instance that couples 'won't' take the trouble or 'want' more and more children – are being disproved by actual contact with the population on a wide scale', noted one news report.¹⁵⁵ Shortly after, many of the aims of those at the Conference were realised – on December 7th, Nehru unveiled the revised family planning policy of the First Plan to Parliament, and India became the first country in the world with an official policy promoting family limitation.¹⁵⁶

By 1953 the relationship between the Government, international organizations, and voluntary associations was converging around family planning research. The first meeting of the Family Planning Research and Programmes Committee (FPRPC) was held in July that year.

¹⁴⁹ S. Chandrasekhar, 'Attitudes of Baroda Mothers toward Family Planning', *Third International Conference on Planned Parenthood* S3/B26/F30 [UofT]

¹⁵⁰ Ibid

¹⁵¹ Ibid

¹⁵² Ibid

¹⁵³ Ibid

¹⁵⁴ Ibid

¹⁵⁵ Robert Trumbull, 'Birth-Curb Myths Exploded' *The New York Times*, November 28th, 1952

¹⁵⁶ Matthew Connelly, *Fatal Misconception*, loc. 2287

Those present included C. Chandrasekharan, KCKE Raja, and Dhanvanthi Rama Rao. Many members of the medical community and representatives of family planning organizations throughout India were requested to attend the first two days of discussion, including observers from the WHO and the United Nations Technical Assistance Administration. The first meeting opened with a discussion of the Report of the Planning Commission, and the specific recommendation that action should be taken to draw up a: 'fairly full and close picture of the rapid growth of population in India', to devise 'techniques of family planning suitable for Indian conditions' and to develop 'appropriate methods by which knowledge of these techniques can be widely disseminated'¹⁵⁷. The overall aim, it was made clear, was that family planning advice was to be made an 'integral part' of the service provided by Government hospitals and public health agencies.¹⁵⁸ To this end the FPRPC was to make recommendations on how to best implement those suggestions, and particularly to 'promote research and other experimental studies that may be required in connection with this programme'.¹⁵⁹

Field experiments were of interest early on to the Committee. The chairman C.K Lakshmanan, Director-General of Health Services, referred hopefully to the research that was being conducted by Abraham Stone as part of the Government-UN investigations into the rhythm method in Mysore and Delhi. Lakshmanan also stressed, however, that 'while research was important particularly for the evolution of one or more methods of contraception which would prove acceptable, effective and cheap', there was an urgent need to take stock of existing knowledge about contraception and 'utilise it immediately' to provide family planning throughout the country.¹⁶⁰ The role of demography in developing the family planning programme was approached in the context of training. Seeking to establish a training programme that would generate family planning experts, the Committee argued that the training teams should include, alongside family planning and medical experts, a 'statistician, preferably a demographer'.¹⁶¹ However, more significant was the kind of research that the Committee was interested in supporting. The Committee argued that while the highest importance should be given to the development of methods of family limitation and to training the required personnel, it was equally necessary to promote studies on the social and biological basis of reproduction. Social attitudes and motivations were viewed as being at the heart of the entire family planning plan:

¹⁵⁷ Ministry of Health, *Proceedings of the First Meeting of the Family Planning Research and Programmes Committee* (Government of India, 1953), p.2

¹⁵⁸ Ibid, pp.2-3

¹⁵⁹ Ibid, p.3

¹⁶⁰ Ibid

¹⁶¹ Ibid, p.22

[the] family planning programme is essentially an attempt to use deliberately planned social action as a means of shortening the long historical process which has been involved in reducing the birth rates of other countries. India is now at much the same point in its demographic development as that reached by western countries at the beginning of the modern economic era.¹⁶²

This understanding of population trends led to the conclusion that the widening gap between the birth and death rates meant population growth would continue to rise (and even to accelerate). 'The reason for this lag (between birth and death rates) is fairly obvious', the Committee report argued – the 'survival instinct of society', and particularly a society with a high death rate, meant that social institutions had been developed to ensure a high birth rate to compensate.¹⁶³ These social institutions had not changed, despite the falling death rate, and thus the 'lag'. The population problem in large part then, centred on the 'institutions and attitudes' that were keeping birth rates high.

A MASSIVE EXPERIMENT FRAUGHT WITH HUMAN SIGNIFICANCE

Spurred on by the imperatives of national planning, the growing influence of theories of modernization and development and their links to demographic transition and fertility control in America, and the consolidation of population as a topic of interest for the Foundations and the UN, population research began to expand in the early 1950s. However, studying the problem with 'scientific accuracy', and the problem of what information was needed to make policy, kept the problem of research and of accurate data prominent. This was clear in the press surrounding the 1951 Census, which drew attention to the need for accuracy in data collection to assist with effective planning: 'In India, which became free only the other day, the question of collecting such reliable data assumes paramount importance'.¹⁶⁴ Census data, both in how it was collected, and how it was presented in the report, developed many of the arguments and methods that had been discussed in the 1940s, and produced a set of arguments about population, population data, and where the population problem was located, that had a long-lasting impact on how it was perceived. One of the most valuable innovations of the 1951 Census however, was the 'tabulation of the All India Primary Census Abstracts for every administratively recognized village...and all demarcated urban enumeration blocks, municipal wards and divisions'.¹⁶⁵ The value of this innovation lay in the how the data made it possible for

¹⁶² Ibid, p.29

¹⁶³ Ibid

¹⁶⁴ 'The Census', February 4th 1951, Newspaper Clippings S5/B38/F33 [UofT]

¹⁶⁵ Ibid

each village, or urban block, to 'emerge as an entity in its own right'.¹⁶⁶ The data for each village was tabulated under a wide range of headings, most of which concerned the use of the land and the livelihood of the people who lived there. Quoting Sardar Vallabhai Patel, the Report set the stage for its treatment of population data;

Census...involves extraction of information which plays a vital role in the determination of many of our administrative policies...In many matters it provides a useful guide for the effectiveness or otherwise of our economic policies. The theory of population is in itself an interesting part of economics. The census helps us to test and adapt that theory to facts.¹⁶⁷

Much like in the NSS, the census was conducted using questionnaires, to be filled out by enumerators.¹⁶⁸ In the month of February, the census enumerators visited 644 lakhs of 'occupied houses', collecting 3,569 lakhs of census slips. Each slip functioned as 'a dossier of one person'. Information held in their dossiers was transcribed into the National Register of Citizens, which had a section for 'every village and every ward of every town'.¹⁶⁹ Differentiating the 1951 census from its predecessors was its emphasis on economic data.¹⁷⁰ The intention – expressed in the instructions issued to the census superintendents – was to collect data that would serve as the 'starting point of more detailed studies of the interrelationships between population changes and economic changes in the country as a whole, as well as in the different states and natural divisions of the country'.¹⁷¹

Gopalaswami wrote that, as the census data was being collected and tabulated, there was a concurrent rise in the public interest in the population problem, and that as a result of this, 'an all-India report on the 1951 census would be materially incomplete if it failed to deal adequately with the population problem of the country'.¹⁷² In dealing with the population problem, the Census Report took a two-pronged approach: looking into the past 'before 1921' to understand the 'foundations' of the present problem, and looking to the future – to 'The Prospect – 1981' – and the outcomes of predictions on the basis of the available data. The predictions the Report made were sobering: 'let us be quite clear about this...it is nearly as certain as any prediction can possibly be that our numbers will rise to 52 crores around 1981'.

¹⁶⁶ Ibid, p.21

¹⁶⁷ R.A Gopalaswami, *Census of India 1951, Volume 1, Part 1-A Report* (Government of India, 1953)

¹⁶⁸ 593,518 in total, under the supervision of 80,006 supervisors and 9845 census charge officers, R.A Gopalaswami, *Census of India 1951*, p.vi

¹⁶⁹ Ibid, p.vii

¹⁷⁰ Ibid, p.x

¹⁷¹ Ibid

¹⁷² Ibid, p.xi

There were two possible outcomes, 'catastrophe' or 'near miracle'.¹⁷³ The catastrophe would be extreme food shortages leading to famine and epidemic disease, 'on the scale which prevailed during 1891-1900'. The near miracle was the adoption of contraception by 'our womenfolk'.¹⁷⁴ To Gopalaswami's mind, there was only one potential solution: 'we must count on the near miracle and bring it about'.¹⁷⁵

'A decade ago', Chandrasekhar observed in 1953, the main controversy was whether or not India was overpopulated.¹⁷⁶ Next, the question had been if birth control was acceptable. 'Today' he argued, 'the issue is...how best to disseminate knowledge of it among the people' – the tide had turned for planned parenthood.¹⁷⁷ Planned parenthood had been endorsed by the nation; the task that lay ahead was to use this to lower the birth rate. The most important factor in achieving it rested on the attitudes of Indian mothers, he argued. The majority of women had been shown to favour birth control,¹⁷⁸ and the question that now had to be faced was how to get it to them. India, he concluded, had 'become aware' of the population, and awareness had 'induced a perceptible change in individual and group attitudes and motivations'.¹⁷⁹

The task of implementing a population policy and conducting research into the factors affecting fertility change – both social and biological – had met with an eager reception in America. John D. Rockefeller 3rd, who had a longstanding interest in birth control, had convened a 'Conference on Population Problems' in 1952. America's best and brightest arrived to discuss population – from scientists to administrators – with expertise ranging from 'botany...to economics'.¹⁸⁰ Frank Notestein, Kingsley Davis, Pascal Whelpton and Irene Taeuber formed the demographic contingent, 'chosen to guide and inform in the discussion'.¹⁸¹ The Conference proceedings demonstrated the concern many felt about population growth in underdeveloped countries. Much of the discussion revolved around India. 'What is there about India that makes this situation acute?' the economist Isador Lasin had asked. 'I think unconsciously we are scared, and I think we have a right to be...that is where the ferment is taking place. That is

¹⁷³ Ibid, p.191

¹⁷⁴ Ibid

¹⁷⁵ Ibid

¹⁷⁶ S. Chandrasekhar, 'The Prospect for Planned Parenthood in India', *Pacific Affairs*, 26:4 (1953), p.321

¹⁷⁷ Ibid

¹⁷⁸ Chandrasekhar cited the results from three surveys to support this claim: his own on the attitudes of Baroda mothers; the preliminary results from the Ramanagaran and Lodi Colony sites of the GOI-WHO rhythm method survey; and the Family Planning Pilot Research Project. Ibid, pp.324-325

¹⁷⁹ Ibid, p.328

¹⁸⁰ Matthew Connelly, *Fatal Misconception*, loc. 2122

¹⁸¹ Ibid

where the pressure is greatest'.¹⁸² Addressing this pressure was to become the aim of the Population Council, the research institute formed following the Conference.¹⁸³

The Ford Foundation, which was already working in India on community development, was beginning to turn to population as well. Writing to the Foundation's American offices in October 1953, Douglas Ensminger – rural sociologist and head of Ford's operations in India – reported that it was time to 'face up' to the population problem.¹⁸⁴ Ford was helping the Government address the immediate problem of food shortages and unemployment, and official and un-official 'leaders of India' had recognized the need for a 'comprehensive programme of population research and control'.¹⁸⁵ Ensminger painted a gloomy picture of the present situation – the rate of population increase was likely to be 2 per cent, resulting in an additional 7.3 million people per year. Population would have doubled, reaching a total of 730 million, by 1986.¹⁸⁶ Not only would this result in an 'intolerable burden' on food production, infrastructure and employment, it was potentially destabilizing. It had been understood, he explained, that the struggle for Independence was also a struggle for freedom from hunger. If the Indian government could not achieve this, there was a chance that people would look to the example of China as a plausible alternative.¹⁸⁷ The urgent question was how to quickly and effectively put a population control program into 'concrete action'.¹⁸⁸ The Government, despite its support for a population policy, was not a swiftly moving organization, and it was too tightly bound by 'ideological pressures' to 'give positive dynamic leadership' to the program.¹⁸⁹ What was needed was an agency – perhaps a 'Population Institute' – that could, with the support of the Government, work to coordinate voluntary and State activities, to train workers, conduct research, and 'examine and stimulate all feasible methods of population and family planning'.¹⁹⁰

By the end of 1953, social engineering was the byword for potential success in combating the population problem. Notestein advocated 'experimental social engineering' – research and policy to raise the age of marriage, provide birth control, begin intensive education campaigns and 'spread the 'ideal of a few healthy children''.¹⁹¹ Demographers, if they

¹⁸² Ibid, loc. 2154

¹⁸³ Ibid, loc.2169

¹⁸⁴ Douglas Ensminger, 'Population Control: India's Number One Problem' October 1953, Ford Foundation Unpublished Reports, B18540/F1747 [RAC], p.1

¹⁸⁵ Ibid

¹⁸⁶ Ibid, p.2

¹⁸⁷ Ibid

¹⁸⁸ Ibid, p.4

¹⁸⁹ Ibid, p.5

¹⁹⁰ Ibid, p.6

¹⁹¹ John Caldwell, Pat Caldwell, *Limiting Population Growth*, pp.26-27

were to be useful, needed to abandon their familiar methodological paths and break new ground. 'India is currently engaged in a massive experiment fraught with the greatest human significance' Kingsley Davis argued in 1953.¹⁹² If the Government's experiment to lower the birth rate succeeded, it would be an example to other parts of the world. 'India's lead may thus help to solve one of the worst afflictions of modern times, the aimless and economically deleterious multiplication of human numbers'.¹⁹³

¹⁹² Ibid, p.28

¹⁹³ Ibid

CHAPTER THREE: INSTITUTIONALIZING DEMOGRAPHIC RESEARCH

In 1940, one of questions most asked regarding population data was how to produce the *right* data. In the 1950s, this was joined by a new concern: *who* should produce it, and *how*. These questions were asked in the context of the rising importance of field studies and the sample survey. This chapter argues that between 1956 and 1960, as demography became institutionalized, so too did a particular kind of research: the field study. The significance of the field study for policy-making was made clear by the end of the Second Five Year Plan, when data produced by such studies became evidence integral to the promotion of family planning in connection with national economic planning. By adding an emphasis on the attitudes and behaviours of individuals, rather than the aggregates provided by the census and NSS, this new data led in turn to a new emphasis in policy - attitude and motivation towards contraception.

Between 1951 and 1955 approximately 15 research studies on demography, family planning and contraceptives were carried out. By the end of the Second Five Year Plan in 1960, this had more than doubled.¹ Much of this research had been encouraged by the structural, institutional and professional support that was further developed during the Second Five Year Plan, though increased interest in population was also emerging in the growing interest and activity of the UN and international research organizations and NGOs, who, like the Government of India, were increasingly emphasizing not only the need for more data but also debated what data was required, and how it should be produced.

The institutionalization of demography in India in the 1950s has not received much attention in the literature.² The Second Five Year Plan period is typically understood in relation to the changing emphasis on family planning in the Plan, and the subsequent development of domestic and international family planning programmes and activities.³ In particular, emphasis is placed on the expansion of the 'clinic approach' to family planning.⁴ Attitudes and motivation, the links between population and policy, and field studies are the subject of an extensive

¹ Kamala Gopal Rao *Studies in Family Planning: India*, pp.4-5

² John P. DiMoia has discussed the institutionalization of demography in South Korea, 'Counting People: The Emerging Field of Demography and the Mobilization of the Social Sciences in the Formation of State Policy in South Korea since 1945', in Heinrich Hartmann and Corinna Unger (eds.), *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*

³ Mohan Rao, *From Population Control to Reproductive Health*, pp.27-30; Dennis Hodgson, 'Orthodoxy and Revisionism in American Demography', *Population and Development Review*, 14:4 (1988), p.554

⁴ Rosanna Ledbetter, 'Thirty Years of Family Planning in India' *Asian Survey*, 24:7 (1984), p.739; Mahinder D. Chaudhry, 'Population Policy in India', *Population and Environment*, 11:2 (1989), p.103; Nilanjana Chatterjee and Nancy Riley, 'Planning an Indian Modernity', p.826

literature. However, they are typically discussed in the context of the international population control movement and their interventions into contraceptive research, demographic research and population policy making from the mid-1950s onwards.⁵ The Khanna Study and the research of Coale and Hoover has received particular attention in this regard – often held up as, respectively, examples of research on contraceptive use and attitudes influencing policy, and of the growing importance of arguments about fertility decline being necessary for development.⁶

Arguing against the ‘diffusion’ theory of population ideas,⁷ expertise and policy, this chapter argues that by placing the interventions of the international population control movement in India in the context of the wider institutionalization of demography as a discipline, the formation of population policy and, most significantly, of expanding research, it becomes clear that they are part of an interconnected research project carried out by and with Indian experts, researchers and policy-makers.

LAUNCHING A NATIONAL PROGRAM

The Second Five Year Plan period (1956-1961) saw an expansion in the activities undertaken during the First Plan period concerning family planning and demographic research. The ‘declared policy of the Government of India’ was to ‘reduce the rate of population growth in order to raise the standard of living and to ensure health, happiness and a fuller family life’. The First Five Year plan – which was a ‘four-fold action-cum-research programme’ was followed by an expansion of activities in ‘service, training, education and research programmes’ in the Second Five Year Plan.⁸ These activities were supported by the establishment of new Government organizations, including a Central Family Planning Board, a Standing Committee, a Demographic Advisory Committee and a Committee on the Physiology of Human Reproduction. In addition, a number of family planning clinics were developed, in rural and urban areas.

The Second Five Year Plan had the problem of population increase at its core, though with a particular focus on the relationship between population, labour, and economic development. Unlike the First Plan, the Second Plan directly linked the reduction of population growth to development, arguing that ‘effective curbs’ and a ‘large and active programme’ to

⁵ See for example, Matthew Connelly, *Fatal Misconception*, loc.2320-2354; Michael Latham, *The Right Kind of Revolution*, pp.98-99; Dennis Hodgson, ‘Demography as Social Science and Policy Science’, *Population and Development Review*, 9:1 (1983), pp.1-34; Deborah Barrett, Charles Kurzman, Suzanne Shanahan, ‘For Export Only: Diffusion Professionals and Population Policy’, *Social Forces*, 88: 3 (2010), pp.1183-1207

⁶ See for example, Mohan Rao, *From Population Control to Reproductive Health*, p.104; Deborah Barrett, Charles Kurzman, Suzanne Shanahan, ‘For Export Only’, p.1190

⁷ Deborah Barrett, Charles Kurzman, Suzanne Shanahan, ‘For Export Only’, p.1190

⁸ Planning Commission, *Second Five Year Plan: Draft Outline* (Delhi, 1956), p.2

reduce fertility was needed, alongside and in support of efforts to increase development.⁹ The Plan also emphasized the importance of the district for planning purposes – ‘the district is the pivot of the whole structure of planning. At this point plans from different sectors come intimately into the life of the people’.¹⁰ This had been determined as early as 1954, when the process of planning for the Second Five Year Plan began. The Indian Statistical Institute was influential in shaping the Second Plan, and Mahalanobis’ recommendations in constructing the draft ‘plan-frame’ were instrumental.¹¹ The crucial factors for the Second Five Year Plan to consider, according to Mahalanobis, were the relationships between investment, national income, and employment.

By 1955 the ‘machinery for the co-ordination of population and vital statistics and demographic studies’ was being reviewed.¹² The outcome at the Government level was the formation of a Standing Committee to coordinate population and vital statistics. The Standing Committee included representatives from Government Ministries, and the Indian Statistical Institute. Family Planning Boards were also established at the centre and in the states, and the position of Director of Family Planning was created, along with positions for family planning officers in the states. ‘Training centres and centrally financed field units in the states were set up. Research and training on demography, reproductive physiology, communications and action research were established.’¹³

These actions, taken together, were responsible for launching what B.L Raina argues was the first ‘national program’. The four principle components of this national program were: to create, through education, the framework for contraceptive acceptance; to provide services – including sterilization services – in rural and urban areas; to train more personnel; and, research. A large amount of activity followed. As well as a large variety of informational material, including ‘posters, pamphlets and folders, films, film strips, slides and exhibits’, public officials were appointed honorary family planning positions, grants were provided to research and voluntary organizations, the staffs of a large number of hospitals were strengthened, and medical and health centres were used for the distribution of contraceptives.¹⁴

India’s population featured prominently in Mahalanobis’ arguments. While unemployment, which features prominently in his discussion, was principally a problem of

⁹ Mohan Rao, *From Population Control to Reproductive Health*, p.27

¹⁰ Ibid

¹¹ Kirit S. Parikh, ‘Economy’, in Marshall Bouton, Phillip Oldenburg (eds.), *India Briefing: A Transformative Fifty Years*, p.51

¹² B.L Raina, *‘India’ in Family Planning and Population Programs: A Review of World Developments* (London, 1965), p.114

¹³ Ibid

¹⁴ Ibid

insufficient capital goods, the issue of 'model building' to try and understand planning in the long term was also of great interest, which in turn required understanding population growth: 'As population in India is growing steadily it is necessary to create enough new work and employment every year to absorb new entrants into the labour force. That is, in India unemployment must expand at least as fast as population which requires that the national economy must also expand, at least equally fast'.¹⁵ The basis for this lay in the way Mahalanobis calculated the economic model. Using the formula $x\beta - p$, where x = rate of net investment, β = the ratio of increase in net national income per unit of time to net investments associated with additional income, and p = rate of growth of the population, which he took to be 'a little less than 1% per year'.¹⁶

The Second Five Year Plan was intended to 'lay the foundations on which a more progressive and diversified economy could be built up'.¹⁷ Effectively, as the report argued, it was 'intended essentially as a preparation for more rapid advance in the future'.¹⁸ In establishing the framework for the Second Five Year Plan, Mahalanobis drew on another research methodology that had been popularized during the war, Operational Research, arguing that poverty, along with underemployment, were the greatest problems that India faced and, that with the proper application of research and statistics, could be solved.¹⁹ Doing so would involve research 'at various levels', as well as scientific and technical knowledge. However, as he noted, while research was important, it was not the goal in and of itself – 'In my view our studies also have the primary aim of solving a particular problem (and not doing any theoretical research for its own sake)...We are speaking of India and suggesting methods which we think are practicable under Indian conditions'.²⁰ The problem to be solved – and for which research could be put to work – had been determined by the Planning Commission as the problem of whether it was possible to lower unemployment and raise the national income over a ten-year period.

As made clear in Mahalanobis' framework, envisioning the future – as the Second Five Year Plan attempted to do – required understanding how population would continue to grow, and how this would affect the economy. The Plan substantially increased the funding available to family planning, and the proposed programme included more grants to Governments and

¹⁵ Ibid, pp.16-17

¹⁶ Ibid, p.9; footnote 2, p.24

¹⁷ *Second Five Year Plan: Draft Outline*, p.5

¹⁸ Ibid

¹⁹ P.C Mahalanobis, *The Approach of Operational Research to Planning in India* (Calcutta, 1963), pp.4-5. For the history of Operational Research see William Thomas, *Rational Action: The Sciences of Policy in Britain and America, 1940-1960* (Cambridge, 2015)

²⁰ Ibid, p.6

organizations to open family planning clinics, as well as greater provisions for training, public education and for research – both on fertility and in demography. Research in fertility and demography was intended to pursue certain lines of inquiry, in particular fertility limitation and, in the case of demographic research, ‘the study of inter-relationships between social, economic, and population changes, reproductive patterns and attitudes and motivations affecting the size of the family and suitable procedures for the rapid education of the people’.²¹

RESEARCHING INDIA’S POPULATION: WHO SHOULD DO IT, HOW, AND WHERE?

The emphasis on motivation and clear linkage between family planning, demographic research and policy was echoed in the debates and plans made during the early Second Five Year Plan period at both the Central and State levels, as well as in the research projects being undertaken between 1956-1960. The issues of putting existing knowledge to use – and the importance of research into attitudes and motivations – had been noted by the Family Planning Research and Programmes Committee (FPRPC) when it had been established in 1953. The FPRPC had maintained that one of the main problems connected to population growth were the ‘institutions and attitudes’ that kept the birth rate high. By 1954, the FPRPC was actively reviewing the question of demographic research, particularly with regards to how it should be conducted, and who should be conducting it.

At the second meeting of the FPRPC in 1954, P.C Mahalanobis and VKRV Rao argued that ‘it was essential to review the whole problem with a view to determining the lines on which research should be undertaken, the institutions or individuals that could take up the studies, the representative regions and populations to be selected for study, the nature and extent of assistance that should be made available and the machinery necessary for coordinating research’.²² They maintained that while the population problem could be viewed both as a quantitative and a qualitative one, the ‘ultimate purpose’ was to improve the quality of the population, and that limiting the total number of people was one of the means by which to achieve that. The kinds of studies that were needed were those that could take an integrated approach, and examine how economic, social and population factors affected growth in different areas, and among different groups of people. A significant part of this research would be an exploration of people’s motivation towards using family planning – in particular, it was argued, ‘studies directed towards throwing light on motivations and attitudes are necessary’.²³

The Committee also argued that, despite the difficulties inherent in such studies (including problems of finding the correct ‘measures’), it was necessary in the context of large

²¹ Ibid, p.156

²² Ministry of Health, *Proceedings of the Second Meeting of the Family Planning Research and Programmes Committee* (Delhi, 1954), p.10

²³ Ibid, p.10

scale population control programs to consider the effects on the quality of the population, arguing that 'the possibility of dysgenic effects resulting from such birth control could not be ignored'. As a result, two programmes of research were suggested – the first on 'demographic or socio-economic and cultural' factors, and the second on 'population quality'.²⁴ The demographic research programme was to follow three suggestions: 1) 'to draw up a programme of research on the high birth and death rates in the country, especially from the point of view of the economic, social, cultural and allied factors involved'; 2) 'to select institutions and individuals for carrying out this research and to recommend sanction of the expenditure involved within the limits of the overall provision for the purpose', and 3) 'to arrange for the co-ordination of these investigations and of the results obtained'.²⁵ The sub-committee in charge of this research included, as convenor, VKRV Rao, as well as P.C Mahalanobis and D.R Gadgil, among others.

The third meeting of the FRPRC raised, in addition to the question of demographic research, the problem of demographic training. The discussions over demographic training and demographic research in the mid-1950s demonstrate the growing internationalism of population research at the time. Present at the Committee on Demographic Studies held at third meeting of the FRPRC, in addition to VKRV Rao, PC Mahalanobis, KCKE Raja, and K.M Dandekar (who was standing in for D.R Gadgil), were P.K Whelpton and M.C Balfour. One of the principle issues discussed at the meeting was the recommendation that a Council of Population Studies should be created. It was argued that the Council of Population should be composed of 'selected non-official representatives of Ministries and other offices of the Central Government interested in population research', as well as select experts on the population problem. Such a body would function autonomously from the Government, and would not only promote demographic research, but also education and training in demography and on the population problem.²⁶ This was considered alongside a call to create a Standing Committee of Statisticians, who would work independently from the Demographic Committee, and review all proposals for demographic research.

The Standing Committee of Statisticians was opposed by those who argued that while statisticians did have a valued role in population studies and research, theirs was not the only relevant expertise, and the population problem was not a 'purely statistical one'. It was agreed that the Demographic Committee, which was composed of statisticians alongside economists, anthropologists, geneticists, psychiatrists and other, had to collectively work to consider the

²⁴ Ibid, p.11

²⁵ Ibid

²⁶ Ministry of Health, 'Appendix III, Minutes, Sub-Committee on Demographic Studies', *Proceedings of the Second Meeting of the Family Planning Research and Programmes Committee*, pp.15-16

population problem and 'arrive at a common plan of action'.²⁷ Nevertheless, a statistical group was created as part of the Demographic Sub-Committee, to which all research on demographic subjects – primarily on fertility and mortality rates – was to be referred.²⁸

By 1954, the issue of field studies was becoming increasingly central to debate. The Demographic Sub-Committee meeting held in May focused closely on the programmes of research that should be supported. Studies that examined high fertility levels and their determinants were suggested, as were suggestions that research should focus on both the analysis of available data – primarily census data and maternity statistics – and the collection through field studies, of the demographic data of different regional areas in India, for example tribal areas, high rainfall areas, areas with specific agricultural production and so on. The Sub-Committee members all agreed that the chief demographic problem was that of collecting 'correct basic data', and that 'the obtaining of such data would be the primary object of extensive field studies now envisaged'²⁹.

Finding researchers to conduct these field studies would require bringing on board both the individuals and institutions that were interested in, and capable of conducting, such research. The NSS, the Registrar General and the Central Statistical Organization were all considered, as were a number of Universities and Research Institutes – the Gokhale Institute, the Delhi School of Economics, the Tata School of Social Sciences, as well the Rural Extension Units, Health Survey Units and Public Health Departments that were being established.³⁰ Reflecting the dominance of the 'regional' arguments about population made strongly by Gadgil and Sovani at the Gokhale Institute, the Sub-Committee's assessment of the research needed to ensure the success of family planning stressed that understanding high fertility rates required viewing them, not in the abstract or in respect of India as a whole but in respect of its different regions and social groups'.³¹ The need to study a multitude of factors that impacted fertility, including 'physical, economic, social, cultural and psychological' alongside the 'content and methods of family planning' was emphasised, as was the question of how to assess progress. The conclusion, that 'a formidable programme of research...will have to be undertaken on a long term basis' required not only a long term plan for research to 'enable formulation and the implementation of a firm policy of family planning and the continuing assessment of its

²⁷ Ministry of Health, *Proceedings of the Second Meeting of the Family Planning Research and Programmes Committee*, p.6

²⁸ Ibid, p.7

²⁹ Ministry of Health, 'Appendix III-A, Minutes, Sub-Committee on Demographic Studies', *Proceedings of the Second Meeting of the Family Planning Research and Programmes Committee*, p.17

³⁰ Ibid, p.17

³¹ Ibid, p.18

consequences', but also trustworthy researchers. The question of who could be trusted with conducting the research, be they institutions or individuals, was up for discussion. Many options, including 'universities, colleges, research institutes, family welfare centres, hospitals, doctors, health officers, community project administrators, rural extension units...social services agencies...individual social works and research scholars' had all been suggested.³² Also being suggested were the kinds of demographic research that should be conducted. It was argued that research should be grouped into two categories – those on published data, and field studies aiming to collect new data. Field studies, the Sub-Committee argued, should aim at collecting data on the family (size and composition), age at marriage and number of children born, practice of family planning, economic status, occupation, caste, education and attitudes on a wide range of social, cultural, and economic factors.³³

By 1955 the Research and Programmes Committee (RPC) was strongly stressing the need for a two-pronged approach to demography: to create a suitable plan for conducting demographic research, and also to help create a body of demographic researchers. VKRV Rao was responsible for composing a plan of demographic research for the RPC, argued that studies should be conducted 'in different parts of India on a somewhat uniform pattern'. They noted that 'ten or twenty such ad hoc studies' could produce in a reasonable amount of time 'a fair idea' of the 'determinants of fertility and mortality'.³⁴ These studies, which would provide 'reliable data' on fertility and mortality in rural and urban areas, were to be conducted on a sample survey basis, with the household – using the definition from the 1951 census- as the unit for sampling. Fertility and mortality data was to be collected in general (for fertility only) and with reference to a specified time period, and would be taken from all women of childbearing age in a given household. The studies could also include an attitude survey on family planning, age of marriage and widow-remarriage, and family size.³⁵ The Committee was also keen to establish a more unified group of demographic researchers, whose interest could be encouraged through the establishment of centres of research in universities and other institutions that would 'promote interest in population studies on a wide basis'. To this end, it was recommended that four centres be established at the Indian Statistical Institute, the All India Institute of Hygiene and Public Health, the Delhi School of Economics and the Gokhale

³² Ibid, p.19

³³ The factors listed were: 1) religion, 2) marriage, 3) children, 4) higher standard of living, 5) social cultural status including education, 6) family planning as an ideas, 7) alternative methods of family planning, 8) widow re-marriage, 9) divorce. Ibid, p.20

³⁴ Ministry of Health, *Proceedings of the Fourth Meeting of the Family Planning Research and Programmes Committee* (Delhi, 1955), p.6

³⁵ Ibid, 'Appendix A', pp.15-17

Institute of Politics and Economics to which research students could be sent to receive training, supported by scholarships.³⁶

THE INTERNATIONAL APPEAL OF INDIAN DEMOGRAPHY

By the mid-1950s demographers and population experts had begun to establish frameworks for their research and were increasingly turning towards the problem of policy relevance.³⁷ While the Government of India had been searching for ways to generate more accurate population data, the demographic institutes were increasingly concerned with producing data that was 'actionable' on a policy level. This involved questioning not only *what* the population problem in India was, but *where* it was – if it was India-wide, regional, or in the family.

International organizations had become involved in funding demographic research during the 1950s to develop networks of demographers and population professionals who would provide 'authoritative guidance' to Governments and the public on the population problem. The Demographic Division of the Population Council was established in 1953 to facilitate this process. In particular, the Demographic Division sought to train and support the skills needed to study population trends, by helping to create what the Population Council argued was then a practically non-existent demographic 'infrastructure' of training centres, schools, and fellowships throughout the developing world. This would, they hoped, 'accelerate' the growth of the discipline and produce skilled personnel and high quality research.

Between 1953 and 1959 the Demographic Division worked towards these goals, aiming to act as a 'clearing house of professional information' and moving closer to creating – and the FPRPC had also envisaged – a 'nexus of population professionals'.³⁸ Significantly, while the creation and training of demographers with the ability to work with and analyse population trends, and use this knowledge to assist governments was one of the Division's main goals, it was envisioned in terms of a particular kind of demographic research: the attitude and practice survey. The Population Council had lent its support to five such surveys, and had sought assistance from the Rockefeller, Carnegie and Nuffield Foundations, as well as the British Council Office, to support further research. India in particular featured as one of the main sites of these early research efforts, and as a centre for demography in the region, and it was research primarily conducted in India that led the Demographic Division to conclude that the use of contraception required knowledge, motivation and approval – all of which needed to be better understood. At the centre, however, were attitude and practice surveys, and in particular, the Indian villager. Combining the results of attitude and practice research to

³⁶ Ibid, p.6

³⁷ Dennis Hodgson, 'Orthodoxy and Revisionism in American Demography', p.546

³⁸ 'Recent Activities and Future of the Demographic Division' (1958), Population Council, General Files, Series IU3B42 B4/F40 [RAC], p.3

determine the course of future research, and applying those results, would help to solve the problem of 'informing, motivating and assisting the Asian peasant villager and his counterpart in other parts of the world, in family planning'.³⁹

In 1955 John Durand, the Assistant Director of the Population Branch at the United Nations remarked that the creation of a regional training centre in the Far East was a top priority. 'It is hoped', he noted, 'that such a regional centre can be established in 1956 that its impact can be felt in time to improve the quality of the 1960 Census, which will take place in most Asian countries'. The major problem for the UN was in where such a centre should be located – while India was the obvious choice due to the high availability of qualified personnel and good universities it was also, Durand argued, plagued by 'jealously and a lack of reasonable cooperation'.⁴⁰ The exclusion of Pakistan from a centre in India was 'seriously unfortunate' and while Ceylon presented a possible alternative the lack of a strong University system or network of population specialists made it otherwise highly impractical.

While John Durand was concerned over where and how the UN should support the development of a regional training centre, Pascal Whelpton was noting the problems developing within India's population research centres. Whelpton had been touring India in 1955, visiting the Gokhale Institute and other researchers and projects. He noted that he had gathered at his visit to the Gokhale Institute, a 'favourable impression' of N.V Sovani as well as K.M and K.T Dandekar. However, like Durand, he commented on the 'jealously, lack of co-operation and even active feuding among major scholars and research centres' which he believed was seriously hampering the work being done.⁴¹

RESEARCHING THE VILLAGE

The research projects discussed by the Government, the UN, Institutes, Universities and individuals both within India and internationally were all broadly concerned with similar questions and similar problems – what research should be conducted, who should conduct it, and why and how should it be done. By the end of the 1950s the answers were increasingly narrowing down to the needs of national economic planning. While national planning provided the rationale for much of the research being undertaken, many of the studies conducted during this period were highly local and relatively small scale, taking place in a limited number of rural or urban locations. Furthermore, while the majority of surveys were conducted in urban areas, the discussions about research – particularly regarding how it should be conducted, the

³⁹ Ibid

⁴⁰ John Durand May 21st 1955, L.C Devlin Diaries, RG 12.2 [RAC]

⁴¹ Ibid

problems of data collection, and the difficulties inherent in fieldwork – tended to concentrate either on the national, or on one particular location, the village.

The village had emerged as a category of interest for demographers and others interested in collecting population data prior to the 1950s, and had featured in many of the debates of the 1940s and early 1950s about population data, both within India and in the work of influential scholars like Kingsley Davis. By the mid-1950s, the growing importance placed on demographic research and particularly on field studies had again cast attention towards the particular locations data was collected from, the methods by which it was collected and crucially, the reliability of the answers that were being provided to the investigators. These issues were tied up with many of the other problems connected to demographic research and field studies that had been raised during the Government and UN deliberations over demographic training, particularly why the research should be done, what should be being researched, and who should be doing it. The support given to research by the Second Five Year Plan and other Government and international bodies encouraged more research to be undertaken. This expansion in Government interest and the need for research and data that grew with the economic and family planning programmes created opportunities for research organizations and individuals that had, until the mid-1950s, struggled to make real headway in gaining support for their projects. It also opened up opportunities, for field studies to be conducted by international researchers.

The call to the villages had been made in connection with research in demography and family planning in the early 1950s. Underscoring the links between high fertility, economic development and family planning, Chandrasekhar argued in 1953 that the movement to include birth control in national planning should ‘start in the villages – the base of India’s socio-economic structure’, though he noted that the practice of birth control had already begun at the ‘apex’ – in the cities.⁴² However, ‘taking birth control to the villages’ had its own set of problems; ‘not only are the villages deficient in basic health and medical facilities’, he argued, ‘they are plagued by unhygienic conditions, insufficient running water, lack of privacy, illiteracy, ignorance and above all poverty’.⁴³ They also provided researchers with another set of problems, not only were they often difficult to reach – as had been emphasized in the 1940s – there were concerns about the quality and reliability of data that were collected in them. Nevertheless, as a category, the village held a great deal of sway over demographers and population researchers.

When Kingsley Davis first arrived in India in 1952 he noted that he particularly relished the opportunity to visit a number of villages, and that his experiences there convinced

⁴² S. Chandrasekhar, ‘The Prospect for Planned Parenthood in India’, p.326

⁴³ Ibid

him that the time was right for demographers and demographic research to move away from collecting survey data and to focus instead on research that would lead to action.⁴⁴ Action also featured prominently in Chandrasekhar's assessment of other projects that were working in India's villages during the early 1950s, particularly the Community Development Projects being undertaken by the Government of India and the Ford Foundation. Emphasizing that the need to raise the standard of living was key to the population problem as well as to economic development, Chandrasekhar argued that the neglect of population in the early Community Development projects was a significant problem.⁴⁵ The 'reconstruction of the rural scene' and the 'rehabilitation of rural man' meant consideration – as the Government of India were unwilling to do – 'the explosive population question in the villages'. What was required was the 'preaching' of planned parenthood in the villages. Drawing from the arguments made in the 1951 Census Report, Chandrasekhar argued that if the 'if the village level worker can only tell people that it is patriotic to have only three children it is quite possible that our villagers might respond sooner than we imagine and this gospel of three children per couple might solve the unhappy problem of improvident maternity'.⁴⁶ This was completely possible in the context of the Community Development Projects because, while the village workers may have lacked specific training in family planning they were, Chandrasekhar insisted, 'multi-purpose agents' capable of carrying out the work of telling people about family planning.

These early arguments featuring the village as a site in which the concerns about the population problem, family planning research and action had begun to solidify in the mid-1950s during the Second Plan period. This is evident in the work of the IIPS, the Khanna study, and the Gokhale Institute. All three dealt with the village, though in different ways, and all were directly linked to the heightened desire on the part of the Government and international organizations for increased field research and data on which to base policy.

THE KHANNA STUDY

The India-Harvard-Ludhiana study, or 'Khanna study' was carried out as a joint project between the Department of Epidemiology at Harvard and the Christian Medical College, Ludhiana with the financial support of the Rockefeller Foundation and the Government of India. Drawing widely on the growing network of population experts and capitalizing off of the support for demographic research and particularly for field trials that had been expressed by the Planning Commission and the FPRPC, the Khanna Study intended to try something new – to conduct a field study with test and control villages to generate more reliable results. The study was wide-

⁴⁴ India; Kingsley Davis, Cross Index: Conservation Foundation, January 14th 1952, RG1.1,S200/B318/F3779 [RAC]

⁴⁵ S. Chandrasekhar, 'Community Development Projects: Family Planning Neglected', *Commerce Annual Review Number* (Dec. 1953), B26/F73 [UofT]

⁴⁶ Ibid

ranging, intending to address a variety of questions including whether contraception would reduce the birth rate of the rural population, what the underlying factors (physical, geographical, biological, psychological, cultural, and economic) affecting birth rate were. The real benefit of the study, however, was going to be its focus not on individuals but on 'populations', which were key the investigators argued, to grasping and solving the population problem.⁴⁷

Studying populations and the population problem required uncovering the 'relevant facts', a cry that had been raised by the Government and population experts in India throughout the 1940s and early 1950s. The 'relevant facts' that the Khanna Study sought were much like those being researched in other investigations, emphasizing vital statistics, and particularly fertility rates, mortality rates, and contraceptive acceptance. These facts were to be found, and accessed, through field studies investigating contraceptive methods. John Gordon, Professor of Epidemiology at Harvard, was the head of the study, and he argued forcefully for it. The measurement of success Gordon provided reflected the aims of the study – 'if at the end of observation a significant decline in births per 100 woman years of village population is demonstrated as the result of induced contraceptive measures, and that significant changes towards improved health and social status exist in experimental; villages coupled with control' then the Study would have achieved its aims.

The logic underpinning the study rested on the familiar understanding of the population problem that linked 'lagging' fertility decline to high rates of population growth. The demographic transition that had resulted in the 'acceptance of the small family system' in Europe and America needed to be encouraged in developing countries. The particular problem that the Khanna study sought to address was that of how 'acceptance of the small family system is brought about in a peasant population'.⁴⁸ By attempting to create acceptance of such a system in India, the study hoped to at least begin to address the problem.⁴⁹ Each of the principal investigators had a stake in the project. The Government of India in particular sought to understand the 'operational needs' of family planning and to test the methods and success of population control'.⁵⁰ The main study was preceded by a pilot study and preliminary investigations which were intended to help iron out working methods and to establish a staff, as well as to discover which particular method of contraception would be 'sufficiently acceptable' to be used in the main study. The pilot study had three main objectives, which were centred around the use of contraception in the village: to understand contraceptive effectiveness, to measure the effect of contraceptive use in birth and death rates, and to observe

⁴⁷ Letter, John E. Gordon to James S. Simmons, October 6th, 1953 R.G1.2 S200/B45/F369 [RAC]

⁴⁸ Ibid

⁴⁹ Harvard University- Population Study R.G1.2 S200/B45/F369 [RAC]

⁵⁰ Ibid

the effect of contraceptive use on the 'health, economic and social status of the community'.⁵¹ The study was to be carried out in three villages, one to act as the test village, one the control and one the 'blank control', where only births and deaths were recorded.⁵²

The role of the village, and of rural India in general, was key to how the project was conceived, and how it was promoted to influential backers in the USA and India. One of the main selling points of the study when it was first proposed was the familiarity of one of the lead investigators – Dr Carl Taylor – with 'local conditions'. Taylor, from the Christian Medical College in Ludhiana, was it was noted, 'born in India, has a sound knowledge of Indian life and customs and speaks the language of the Punjab'. In addition, he was 'familiar with the local conditions and with the Hindi language, since he lived for three years near an Indian village'.⁵³ The emphasis placed on Taylor's local expertise contrasted with the wide definition of 'population problem' the study was working with. 'The problem is one of communities, of the general population', it was argued, 'and not one of individuals'.⁵⁴ Nevertheless the communities and general population were both believed to be represented by the lives and experiences of those in rural villages, and their responses, particular towards the 'acceptability' of contraceptive methods, were highly sought after. 'Acceptability by a general population', it was acknowledged, 'involves something more than acceptability by those persons who come to a clinic from a recognized need for help' – and it was that 'something else' that the study would determine, by observing a group of villagers believed to be representative of the Punjab area.⁵⁵

Generating relevant and representative data on India's population to help understand and possibly alter the population problem in India was one of the driving concerns of the First Five Year Plan and of the FPRPC, which had specifically noted the role of field investigations and demographic research in the early 1950s. The Khanna Study capitalized on this, and drew on the growing network of Indian and international population experts to pursue its aims. Carl Taylor had come to know John Gordon through the time he spent in Harvard studying, when they had discussed Taylor's work and ideas for further research projects, which Gordon strongly supported. The Rockefeller Foundation's involvement in the early 1950s coincided with the growing of the Foundation and the Government of India for these kinds of field studies and eventually lead to a series of meetings between Gordon, Taylor, Marshall Balfour – a senior Rockefeller representative in India - KCKE Raja, and C. Chandrasekaran.⁵⁶ The study also

⁵¹ Ibid

⁵² W. Parker Mauldin, 'The Population Policy of India: Policy, Action and Research' *Economic Digest* 3:2 (1960), p.27

⁵³ Harvard University- Population Study, R.G1.2 S200/B45/F369 [RAC]

⁵⁴ Ibid

⁵⁵ Ibid

⁵⁶ Marshall C Balfour to John. E Gordon, 31st December, 1953 R.G1.2 S200/B45/F369 [RAC]

actively sought the support of many other researchers – including N.V. Sovani – who were already known to the Rockefeller Foundation and the Government through their existing research and Institutional connections.

Khanna was chosen in 1953 as the site for the study. Gordon and Taylor, prior to making their choice, and in an effort to better understand village life, had camped out in a village for four days. Their aim was to ‘observe village life, morning noon and night’.⁵⁷ Gordon and Taylor visited houses in the village to see how people lived and where they slept. Their time there, Balfour noted, though short, was still much more than many surveyors or government visitors were allowed.⁵⁸ This experience brought home to Gordon the ‘primitive conditions’ of the villages’ as well as the difficulties inherent in conducting village study. He concluded that ‘general motivations and certainly the sex behaviour of villagers are little known’.⁵⁹ The choice of Khanna, which was located between Ludhiana and Delhi on the Grand Trunk Road was motivated by several factors, including the belief of Gordon and Taylor that villagers in the area were receptive to the experiment and to the doctrine of family planning.⁶⁰

By 1955 the pilot studies had gotten underway. The most significant early findings were that the most widely accepted contraceptive method, particularly in Manupur village, was foam tablets. ‘These studies’, Gordon wrote, ‘were designed to gain knowledge of what may be termed the natural history of birth and conception in an Indian rural community, believing that knowledge to be fundamental to any wide scale administrative measures’.⁶¹ The importance of rural research, which had itself been reiterated in the build up to the Second Five Year Plan, was emphasized – rural populations, Gordon asserted, were ‘the core of the population problem. The location of the study, and the questions being investigated had been determined in the early 1950s, however the issue of representativeness and size of the study was still being debated in 1956. The study’s Advisory Committee agreed that 8,000 people were needed for the test population, and 8,000 (split between the two control villages) for the controls. KCKE Raja was pessimistic about the ability of the study to produce useful results – ‘the attempt to find a significant change in the natural increase of population would probably not be successful’, he noted.⁶² Too many other variables remained unaccounted for. Raja highlighted in particular the problem of accurately recording birth and death rates.⁶³ Other aspects of the

⁵⁷ Ibid

⁵⁸ Marshall C. Balfour, Diary Note, July 9th, 1953 R.G1.2 S200/B45/F369 [RAC]

⁵⁹ Ibid

⁶⁰ John E Gordon to Andrew J, Warren, November 17th, 1953 R.G1.2 S200/B45/F369 [RAC]

⁶¹ John E. Gordon to R. S Morrison, October 3rd, 1955 R.G1.2 S200/B45/F369 [RAC]

⁶² Minutes, 4th Meeting of the Advisory Committee of India-Harvard-Ludhiana Population Study, April 14th, 1956 R.G1.2 S200/B45/F369 [RAC]

⁶³ Ibid

study were also already in difficulty, in particular the aim to study the socio-economic factors related to the population problem. Gordon argued that the study was not long enough to measure socio-economic change, or change in health status, as had originally been intended. In particular, it was noted that measuring socio-economic status would be particularly problematic. However, N.V Sovani offered a potential solution – it would be possible, he argued, to study socio-economic change by comparing the number of families above and below the poverty line, according to the size of the family. This could be done as part of the visits that were already being conducted during the experiment. ‘No other type of survey’, he argued, ‘would show the effect of a contraceptive programme’. Once the data was collected, families could be assessed according to ‘acceptors and non-acceptors’ of contraceptives. This would could, in addition, be supported by the units of the Food and Agricultural Ministry that were intended to undertake studies of rural change.⁶⁴

By 1957 more difficulties were being faced by the Khanna study. Acceptance rates had declined, and many of the villages under study had never reached the 25% acceptance level that the study design had originally required.⁶⁵ Significantly, there anxiety among the investigators that mistaken impressions, particularly on the part of the Government, should not be made on the basis of their results. John Weir wrote to Balfour that attempting to review the progress of the study had turned up only the initial results from 1955 – ‘this of course gives us little or nothing to use as a basis of judgement’ he noted. Using the study as the basis for any kind of judgement was concerning others in the Rockefeller Foundation. Dean Rusk had asked Balfour for ‘any thoughts...on the likelihood of authorities in India undertaking mass application of the methods used in this study, or in other studies, prior to the completion of such studies with sound statistical basis for going forwards or not proceeding. In short’, Rusk wanted to know, ‘what position we might be in if government were to undertake application of these methods before there was sound basis for thinking they were useful’.⁶⁶ Balfour took these concerns to Gordon, noting that ‘our Officers are concerned that the Government of India might undertake a mass application of a method under study before there is adequate basis to judge the results’. However, Balfour also noted that, ‘I do not believe there need be anxiety on this score, or at least that any such action will reflect on the Khanna project. In fact, the Notestein-Baumgartner report of November-December 1955 urged Government to take action...In their view the beginning of action need not await lengthy field experiments’.⁶⁷

⁶⁴ Ibid

⁶⁵ W. Parker Mauldin, ‘The Population Policy of India: Policy, Action and Research’, p.29

⁶⁶ John M Wier to M.C Balfour, February 15, 1957 R.G1.2 S200/B45/F369 [RAC]

⁶⁷ M.C Balfour to John E. Gordon, 5th March, 1957 R.G1.2 S200/B45/F369 [RAC]

THE IIPS

The Khanna study and its relationship to the village – both as a concept in the larger understanding of the population problem, but also as a location to investigation, reflected and developed many of the ideas and problems that had been discussed regarding conducting demographic research in India throughout the 1940s and 1950s. The need to produce reliable data and to understand the relationship between contraceptive practices and birth rates, socio-economic factors and other questions were being explored by a wide range of researchers in the early and mid-1950s. While the Khanna Study had the financial luxury of being able to undertake a long term study, other research organizations were looking to conduct smaller, faster investigations, which they argued were both cheaper but also produced up to date data for policy making.

Though Chandrasekhar had been relatively unsuccessful in garnering Government support for the IIPS in the early 1950s, he continued to try. Writing to V.T Krishnamachariar, Deputy Chairman of the Planning Commission, in October 1954, Chandrasekhar elaborated on the work he was doing in the UK, and requested assistance for the IIPS. He linked this request directly to the plans for supporting demographic research in the Second Five Year Plan, and specifically to the rumours that the Planning Commission was looking to create its own Institute of Population Studies to carry out research. 'If this project is going to take some years to materialize', he wrote, 'I hope you will find it possible to give such assistance as you can to my institute because I would like to begin work soon on several research projects with special reference to India'.⁶⁸ The question of Government support for population research institutes was also addressed by John Mathhai, who wrote to Chandrasekhar in April 1955 stating that 'The question of starting a school of Population studies, under the auspices of the Government of India is still, I understand, under consideration'. However, he did note that the Planning Commission was keen for such an organization to be started as soon as possible, and that, if the opportunity presented itself, he would recommend Chandrasekhar to any available post.⁶⁹

The IIPS and Chandrasekhar came closer in late 1955 to gaining support from the Government for their research. Writing to Farrer-Brown of the Nuffield Foundation in November 1955, Chandrasekhar outlined how he had met and discussed his plans for conducting the Madras Survey with V.T Krishnamachariar, who had been supportive of the plans. Chandrasekhar noted that he had appraised both the Government of Madras and the City Government, and had obtained their views on the proposed survey as well. He had also obtained the views of Dr. Mudaliar, as well as Rajkumari Amrit Kaur, who had been supportive

⁶⁸ S. Chandrasekhar to V.T Krishnamachariar, 16th October, 1954 MSS-189, General Correspondence [UofT]

⁶⁹ John Matthai to S. Chandrasekhar, 12th April, 1955 MSS-189, General Correspondence, B1/F21 [UofT]

of the project, assuring the cooperation of the Government, and introducing Chandrasekhar to Lt. Col., Lakshmanan, the Director General of the Health Services, and V.K Pillai, the Secretary to the Ministry of Health.⁷⁰

By 1955 the IIPS had incorporated into its constitution many of the concerns about India's population being expressed by the Government as well as at international events like the 1954 World Population Conference or the International Planned Parenthood Federation meeting. In particular, the IIPS's constitution acknowledged, in addition to the problem of population, famine and standards of living, vital statistics and field studies, the importance of work to be done on 'the attitude of Indian people towards family size and planning'⁷¹. These were, the constitution made clear, needed to formulate a democratic, 'positive' population policy. The importance of academic organizations to assist the Government – and their relative dearth in India – was also emphasized. What was needed, the IIPS argued, were institutions that were 'entirely devoted to population research' that could provide data both for the government and for public.⁷²

Chandrasekhar had been arguing for the utility of demographic research – and particularly research on attitudes towards family planning and family size – since the early 1950s. In 1955, presenting at the International Conference on Planned Parenthood in Tokyo, he rearticulated his points. Arguing that the high rates of population growth in the underdeveloped countries were creating a social, political, cultural and economic dilemma that would have to be addressed, he held up 'an understanding and appreciation of the cultural barriers to the widespread dissemination of the family planning habit' as highly valuable.⁷³ At the core of his argument was the relationship which had been addressed in the First and Second Five Year Plans – that of population and development. 'Overpopulation', he argued 'is a symbol of unbalanced development', of which India's villages were prime examples. Birth control offered a way to assist with the problem of planning and development – 'family planning implies planned family in a planned economy. The ends of the family planning movement are bound up inextricably with economic, social and health planning and progress of the people'.⁷⁴ The problem, however, was not only a technological one, it was sociological, a problem of motivation. 'It is not the want of knowledge in libraries or laboratories' that presented the

⁷⁰ S. Chandrasekhar to Farrer-Brown, 18th November, 1955 MSS-189 General Correspondence [UofT]

⁷¹ *IIPS Constitution 1955*, IIPS History / Objectives, B54/F18 [UofT]

⁷² Ibid

⁷³ S. Chandrasekhar, *Cultural Barriers to Family Planning in Underdeveloped Countries* (1955), B26/F88 [UofT]

⁷⁴ Ibid

primary obstacles, he argued but rather whether people knew about family planning and desired to apply this knowledge. In this, he argued, 'motivation is all supreme'.⁷⁵

Putting the plans outlined in the Second Five Year Plan into action, the State of Madras created a plan of action to determine how to best implement programmes and propagate the uptake, and understanding of, family planning. The goals of the Second Five Year Plan – which the Family Planning Board in Madras summarized as 'the problem of regulating India's population from the dual standpoint of size and quality' for national welfare and planning, were to be achieved through a four-point strategy. This included determining what factors were contributing to rapid population growth, to develop better understanding of fertility and how it could be regulated, to develop better and faster ways to educate the public about family planning and population, and finally, to better integrate family planning into hospitals and health centres.⁷⁶ Part of this programme of action, it was noted, was the effort undertaken to help foster 'active public opinion' in support of family planning, as well as to support demographic and biological studies. This had been begun during the First Five Year Plan, and was to be further extended in the Second Plan period, particularly through the extension of family planning provision, training and research. The programme of demographic research envisaged by the Family Planning Board was largely focused on the questions of motivation and communication. The Government of Madras, keen to cooperate with the Central Government regarding the execution of the Second Five Year Plan, planned to establish a family planning Board.

The first meeting of the Family Planning Board of the Government of Madras in September 1956 established the place of demographic research – and demographic experts like Chandrasekhar and R.A Gopalaswami – who had been the 1951 Census Commissioner – in helping to form family planning policy. Chandrasekhar was present as a non-official member, and was invited with Gopalaswami and three others to serve on a Sub-Committee of Family Planning. The two primary tasks of the Board were to publish a family planning manual, and to design and implement pilot projects to investigate the propagation of family planning in Madras, Coimbatore and Madurai. These were intended to produce not only practice experience but also vital statistics – the studies were to be conducted for a period of 3 years on no fewer than 10,000 married couples – and were to be used by the Board to formulate conclusions on the best organization and methods of work that were necessary for the 'successful propagation and practice of family planning in the future'.⁷⁷ Significantly, the degree of effectiveness of the advice offered by the family planning manual was to be measured 'by actual and substantial

⁷⁵ Ibid

⁷⁶ Government of Madras *Family Planning: Propagation of the Practice in Madras State during the Second Five Year Plan*, 15th July 1956 MSS-189, B1/F24 [UofT]

⁷⁷ Ibid

reduction of the birth rate and the incidence of improvident maternity among married couples who practiced family planning'.⁷⁸

The first meeting of the Family Planning Board had discussed in the detail the creation of a Family Planning Manual, and what methods should be recommended by it. In particular, the 'husband careful method' was debated, though vasectomy – particularly whether it could be performed by private medical practitioners, and the amount they could be paid in compensation – was also raised. It was decided that a Sub-Committee should be formed to discuss these issues, and consider the creation and distribution of the family planning manual as well as the launching of family planning pilot projects in Madras City.⁷⁹ By 1956 the IIPS was engaged in research on many of these issues. Having received funding from the Canadian Kaufman Fund, the Hopkins Trust of America and the Government of Madras, the IIPS was conducted three projects: a demographic survey of Mangadu village, a survey of the 'cultural and material obstacles to the dissemination of family planning in rural areas', and a research project on published data for a demographic survey of Asia.⁸⁰ Chandrasekhar was keen to align this research to the new demographic aims of the state, though he had long been a vocal supporter of the policy relevance of demographic research. 'May I point out', he noted, 'that this work is of an all-India interest, in fact, of an all-Asia interest...I am confident that the results of such work will be useful not just to the general public but to the Governments in the Centre as well as the States'.⁸¹

The first research project carried out by the IIPS for the Government of Madras was the Demographic Survey of Mangadu Village, which was conducted between 1957-1960. This study was jointly funded by the Government of Madras, who gave Rs. 12,000, and the Kaufman Foundation, who gave Rs.60,000.⁸² The Government of Madras also requested that the IIPS investigate family planning attitudes in the city of Madras. The demographic survey of Mangadu village was intended to provide a 'useful' account of rural population dynamics that could assist the Government in formulating population policy. The second survey the IIPS was conducting, on the cultural and material impacts of family planning was also designed with policy in mind, as 'an attempt to assess the material, cultural and psychological barriers to dissemination of

⁷⁸ Ibid

⁷⁹ *Minutes, First Meeting of the Family Planning Board*, 11th September, 1956 (Madras) MSS-189, B1/F33 [UofT]

⁸⁰ S. Chandrasekhar to S. Bhagavanthan, 29th December, 1956 IIPS Correspondence, B54/F16 [UofT]

⁸¹ Ibid

⁸² *Indian Institute for Population Studies, IIPS History/Objectives*, B54/F18 [UofT]

family planning'.⁸³ As in the case of the demographic survey of Mangadu, the research was linked explicitly to Government policy making and family planning that had been enacted as part of the Second Five Year Plan.

Mangadu Village was chosen partly due to its convenient location – being within travelling distance of Madras – but also because the village had a 'record of cooperation' with Government officials, as well as a familiarity with foreign researchers.⁸⁴ The study included a census of the village, taken using a modified version of the 1951 census questionnaire, collected on the basis of households. Data was collected on the village over the course of one year (January to December 1956), during which investigators attempted to follow-up on every major demographic event – births, deaths, marriages, and migration. The goal was 'the complete registration of vital statistics' for the village, and to observe in close detail the daily life of the village, including the beliefs and behaviour of the villagers, including social structure, economic situation, inter-personal relationships, 'marriage patterns and morals' and politics.⁸⁵

The Mangadu Survey is a good indicator of what – and where – the population problem was believed to be by the late 1950s. Chandrasekhar argued that the key work for demographers with regards to population and family planning was the sociological aspect of convincing people to make use of available family planning techniques, and that the solution to this problem lay in the villages. Ignoring the villages in favour of cities and urban locations would, he argued, only exacerbate the existing problem of different fertility between rural and urban areas. The problem was not only about what contraceptives should be used, but was also – and he argued primarily – about knowledge and motivation. The aim ultimately was to change culture 'from within...by persuasion', and demographic studies were needed as a pre-requisite for Governments on which to base their social and economic policies that would drive social, cultural and economic change.⁸⁶ This argument was at the core of the IIPS's Mangadu Village Survey. Field studies, the report argued, conducted on a census or sample basis, were urgently required given the poor state of India's 'defective' vital statistics. It was argued also that knowledge, attitude and practice surveys in particular were required – and this was one of the main reasons why the Mangadu Survey was carried out.⁸⁷

The Fertility Survey conducted by IIPS in 1958 built on many of these arguments, particularly in persuading the Government of Madras that such a study should be funded.

⁸³ Sripati Chandrasekhar, 'A Demographic Study of An Indian Village' *Population Review* 1:2 (1957), p.60

⁸⁴ Ibid

⁸⁵ Ibid, p.62

⁸⁶ Ibid

⁸⁷ Ibid

Writing to R.A Gopalaswami in April 1958 Chandrasekhar proposed to conduct an attitude survey in the City of Madras 'in connection with the proposed scheme of promoting vasectomy operations...as an experimental method for one year'.⁸⁸ The attitude survey would provide some indication of how fathers in low-income groups felt about family size and family limitation, particularly how and why people were practicing contraception, 'and what their reaction is to a simple surgical but permanent method of contraception control'.⁸⁹ The study was, like the Mangadu Survey, to be conducted through a questionnaire, addressed primarily to men between the ages of 25 and 50, who had at least three living children. The survey intended to look only at low-income families, and capped the monthly income of respondents at Rs.200/month or below. Conducted with four interviewers on a random stratified sample basis, the survey would take only 2 months and cost Rs.1000.

THE GOKHALE INSTITUTE

The Gokhale Institute had been in receipt of international and Government assistance – as well as an active participant in shaping Government policy on data collection and research – since the 1940s. The research conducted by the Institute in demography during the mid-1950s was done in direct response to the schemes laid down by the Demographic Sub-Committee of the FPRPC in 1954. Responding to the call for investigations into the demographic data needed to calculate fertility and mortality rates in rural areas; attitudes to, and acceptability of, family planning and contraception; and the socio-economic determinants of fertility and mortality.

The resulting investigation - the 'Demographic Survey of Six Rural Communities' was begun in 1954 – built off work conducted by the Institute in the early 1950s. Like other field investigations being conducted in the 1950s, the Demographic Survey was based on an understanding of the population problem that took rural areas as the primary location for study. This had been thoroughly developed in the early work of Gadgil and Sovani in the 1940s, as well as in the earlier research carried out by the institute in the 1950s. The Demographic Survey of Six Rural Villages made some significant departures from the earlier research projects, in particular in the way it covered a far wider geographical area. This had the effect, Dandekar argued, of highlighting the difference in economic and social factors in different locations, as well as outlining the basic commonalities of the 'demographic situation of the country'.⁹⁰ The survey also covered a wider range of topics, looking at social and economic questions as well as demographic ones. In particular, the study looked at attitudes to family planning, confirming the results of earlier investigations.

⁸⁸ S. Chandrasekhar to R.A Gopalaswami, April 1956, IIPS Correspondence, B54/F16 [UofT]

⁸⁹ Ibid

⁹⁰ Kumudini Dandekar, *Demographic Survey of Six Rural Communities* (Poona, 1959), p.1

The geographical area covered by the Survey consisted of six rural centres, each of which was comprised of 'a nuclear large village together with neighbouring small villages'.⁹¹ These were the same centres under investigation by the Agricultural Economic Section of the Gokhale Institute, and had been chosen because they represented different economics types, as well as being 'suitable' for demographic investigation. Crucially, linking the two investigations through their locations made it possible to 'plan the socio-economic and the demographic investigations on a complementary basis'.⁹² In total, from the six centres, 26 villages and 37,935 people were studied in 1,200-1,500 households. Like the Khanna Study and the Mangadu Study, the Demographic Survey was investigating knowledge of, attitudes towards, and practice of contraception. To do this effectively, the Gokhale Institute had employed a different investigative technique – they trained 'lady investigators'. Lady investigators were nurses and health visitors who had been specially recruited for the survey. They had received two months of training in investigational methods and two weeks of training in family planning.⁹³ The purpose of the lady investigator was to help establish good will in the field, making their inquiries about marriages, family planning and family limitation easier. The lady investigators spent one year in the field, supported by the male investigators from the Agricultural unit. They were also assigned local assistants, whose role was to help established local contacts, accompany the investigators on household visits and to neighbouring villages, and with the filling-out of questionnaires.

Crucially, the survey's results on factors affecting fertility concluded that neither biological nor socio-economic factors had any significant impact on fertility. The survey analysed five factors – age at present marriage; age difference between husband and wife; number of children; income, and; caste – and found that none of these factors had a positive effect on fertility.⁹⁴ In the discussion of family planning, the report noted that investigators had first inquired about women's attitudes towards pregnancy, and found that 'On the whole, women looked upon the delivery as a normal matter and certainly no great hardship. Few complained of a lack of helping hands or of the expenses involved'.⁹⁵ Approximately 40% of the women questioned were in favour of family planning, with another 40% opposed, and 15% refusing to discuss.

The survey results suggested that there was a large variation in attitudes towards family planning:

⁹¹ Ibid

⁹² Ibid

⁹³ Ibid

⁹⁴ Ibid, p.72

⁹⁵ Ibid, p.86

it is possible that there was something in the local circumstances...which conditioned responses...However we are inclined to believe that more than anything else it was the personality and prejudice of the investigator and the accident of village leadership taking one or the other view that mattered most.⁹⁶

The survey noted that while attitudes were not set one way or the other, this was overall positive – ‘the population has little prejudice and a virtually open mind’. However, the report went further, arguing that while a ‘neutral’ or passive investigation tended towards generally positive but ‘passive’ responses, ‘a more active or action-oriented investigation does not seem to meet with active resistance, but in fact seems to bring more active responses’.⁹⁷

The research projects conducted at Khanna, Mangadu and by the Gokhale Institute demonstrated that the choice of locations was rather unsystematic. In all of the cases, the villages under study were chosen for logistical convenience rather than because of their inherent demographic qualities, or because they were representative of a region, or of India.⁹⁸ Neither were village studies representative of the all of the research being conducted. Nevertheless, the idea that the population problem and its solution lay in rural populations had become largely accepted not only by the population experts but also by the Government who were willing to generate policies on the basis of these studies.

POPULATION GROWTH AND ECONOMIC DEVELOPMENT IN INDIA

‘What difference would it make in economic terms if the birth rate, instead of remaining unchanged, should be cut drastically in this generation?’⁹⁹ This was the question that Coale and Hoover set out to answer in their study of population growth and economic development in India. The resulting study, *Population Growth and Economic Development in India*, published in 1958, is widely considered to be a seminal text in the effect on population growth for developing economies.¹⁰⁰ Coale and Hoover’s results, which used the analytical method developed by A. J Lotka to assess age patterns and growth rates, were highly influential. Unlike many earlier population projects which had predicted growth rates of less than 2%, the 2% rate forecast made in the study provided an impetus to action on the part of the Indian Government,

⁹⁶ Ibid, p.101

⁹⁷ Ibid

⁹⁸ Mohan Rao makes this point with regards to the Khanna Study, *From Population Control to Reproductive Health*, p.132

⁹⁹ Frank Notestein, ‘Foreword’, in Ansley J. Coale and Edgar M. Hoover *Population Growth and Economic Development In Low Income Countries: A Case Study of India’s Prospects* (Princeton, 1958), p.v

¹⁰⁰ Dennis Ahlburg and Robert Cassen, ‘Population and Development’ in Amitava K. Dutt and Jaime Ross (eds.) *International Handbook of Developmental Economics* (Cheltenham, 2008), p.318

who had been given access to their predictions 'some years' before their study was published¹⁰¹. The Population Growth Study was the second major population study to be produced by the OPR, following on from Kingsley Davis' 1951 *The Population of India and Pakistan*. Like Davis, Coale and Hoover took India to be a good case study for all developing countries. India, Notestein explained in the foreword, was the perfect case study for the study because it was the best representative of all low-income countries of the problems population growth produced for economic development.¹⁰²

However, the late publication date of the Study masks the mid-1950s origins of the research on which the study was based. Begun late in 1954, the purpose of the study was conceived to be to assess the relationship between population growth and economic development. India was chosen as the principle case study 'partly because its demographic data are relatively plentiful and partly because from the analytical point of view, the relationship between economic development and population change in India seems comparatively clear'.¹⁰³ India's large population, particularly relative to resources, and 'large potential for rapid further growth' combined with the driving need to find a solution 'within its own borders' to its economic and demographic problems made it a good case study – the 'internality' of India's economic and demographic situation 'means that analysis of demographic effects in economic terms can appropriately concentrate on internal problems to a greater extent in India's case than in most other countries'.¹⁰⁴

Discussing general patterns of fertility and mortality decline in the context of the theory of demographic transition, Coale and Hoover noted that, while it had been expected that urbanization would lead naturally to falling fertility, this had not occurred in all cases. Likewise, while declining death rates had previously occurred only after economic development, in the post-war world, cheap advances in sanitation, health and pesticides meant that death rates were declining without a corresponding rise in economic development. These were factors were particularly prominent in Egypt and India, and Coale and Hoover questioned whether the efforts to create economic and social change over the next two decades would have any noticeable effect on fertility.¹⁰⁵

This was compounded by the problem population growth raises for economic development – while higher rates of population growth required higher rates of investment to

¹⁰¹ W. Paul Strassman, 'Review: Population Growth and Economic Development: A Case Study of India's Prospects', *Journal of the American Statistical Organization* 55:289 (1960), p.239

¹⁰² Frank Notestein, 'Foreword', in Ansley Coale and Edgar Hoover, *Population Growth and Economic Development*, pp.v-vi

¹⁰³ Ansley Coale and Edgar Hoover, *Population Growth and Economic Development*, p.3

¹⁰⁴ Ibid, p.4

¹⁰⁵ Ibid, p.16

reach any given level of per capita output, there was no reason to believe that faster growth rates would also produce a greater supply of resources.¹⁰⁶ Discussing India specifically, Coale and Hoover first identified the 'noteworthy' characteristics of the Indian population, namely, the high absolute number of people, the density, birth and death rate, and age distribution. They argued that India had 'every reason' to expect a 'pronounced and rapid decline in mortality' over the next three decades.¹⁰⁷ Expectation of life span at birth was also due to increase, they argued, from 32 in 1951 to 52 by the 1986. Fertility, however, was subject to more variety in its prediction. Coale and Hoover made three estimates: 1) that fertility would remain unchanged between 1951 and 1986, 2) that it would remain the same until 1956, when it would begin a decline, halving by 1981 and thereafter remaining consistent, and 3) that decline would be 'postponed' until 1966, when it would fall more rapidly than in scenario (2), again halving by 1981.¹⁰⁸

Assessing fertility and mortality trends was problematic, Coale and Hoover argued, because – in the standard refrain of population experts working in and on India – vital statistics were deficient. They argued that 'contrary to most widely published estimates, that birth and fertility rates have *not* declined to any important degree in recent years'.¹⁰⁹ Such a decline would have been represented, according to the application of Lotka's method, by a change in age structure, which would have been recorded by the census. The absence of such a change, and indeed the near identicality of the recorded 1951 age structure to that from 1931 – suggested that no decline in fertility had occurred during that period.¹¹⁰ Coale and Hoover went further, arguing that there was in addition no evidence to support the idea that there had been significant changes in the Indian social or cultural structures preceding 1951 that would have led to a drop in fertility. Likewise, they denied that any large uptake of birth control had occurred – even among the 'higher classes' as had arguably been the case in the West – because there was very slender evidence showing an appreciable change in differential fertility across class.

Coale and Hoover were also largely pessimistic about the prospects for fertility change after 1951. 'The fundamental reason why there is a wide range of uncertainty as to the future course of fertility rates in India is that any major downward trend in fertility is likely to depend on the effectiveness of nation-wide programs designed to reduce the level of birth performance'.¹¹¹ Without 'sure indications' of program effectiveness, or of the scale of the

¹⁰⁶ Ibid, p.19

¹⁰⁷ Ibid, p.34

¹⁰⁸ Ibid, p.34

¹⁰⁹ Ibid, p.43

¹¹⁰ Ibid, p.47

¹¹¹ Ibid, p.56

Government program to be deployed, only simple predictions could be made. Coale and Hoover argued that that 'with a minimum program of family limitation, or with an ineffectual program, fertility might remain unchanged for the next twenty five or thirty years'. Justifying their arguments, they maintained that it was necessary to test the contrasting position, namely that a 'well-defined and well-executed program of family limitation could reduce fertility by half' in the same time period.¹¹² Unchanging fertility was an assumption they justified by looking at the arguments typically made to forward the idea that fertility had already declined; that fertility was low in high socio-economic groups and would spread; that rising trends in the age of marriage would lead to lower fertility; and that the Five Year Plans of economic development would lead to lower fertility as populations urbanized and national incomes rose; and finally that decreasing child and infant mortality would lower fertility because people would not require such large families.¹¹³ The first three points were soundly dismissed as not being based in evidence. The fourth point, it was conceded, 'required more extended examination'.¹¹⁴ The question was how far the change from agrarian to industrial the economy had to go before high fertility would be reduced. Either way, they contended that it was unlikely that this would happen within a twenty or thirty year period. As Mahalanobis had done, Coale and Hoover relied on the data from Japan to make this comparison.

'On balance', they argued, 'there is little justification for a belief that fertility in India is in the incipient stages of a more or less inevitable decline'. However, they accepted that the basis for the most pessimistic projection on fertility decline could be taken as being 'somewhat conjectural', and allowed that a 'major decline may be assumed only if the Government takes an unprecedented, nationwide program designed to introduce family limitation into every village'.¹¹⁵ Problems were anticipated, particularly with regards to communication, not only about family limitation but also about the physiology of sex and reproduction, as well as finding methods of birth control that would be 'acceptable' to use.¹¹⁶

Though the Study was published in 1958, the recommendations, attitudes and evidence were gathered and formed during the mid-1950s, when they had travelled to India. Coale and Hoover drew on the research that was being conducted by the Gokhale Institute – particularly the 1955 *Fertility Study of Nasik, Kolaba and Satara (North)*, as well as the early results from the preliminary investigations of the Khanna Study, and from the World Health Organization's research on the rhythm method.¹¹⁷ The WHO Study, they argued, which

¹¹² Ibid, p.56

¹¹³ Ibid, p.57

¹¹⁴ Ibid

¹¹⁵ Ibid, p.60

¹¹⁶ Ibid, pp.60-61

¹¹⁷ Ibid, p.61

contrasted rural villages in Mysore State with an urban housing unit in New Delhi, showed that over 75% of couples wanted to learn about family planning. Sovani and Dandekar's study had likewise demonstrated a high desire on the part of couples to learn about family planning. These were also the tentative results being presented in the early investigations of the Khanna Study, which showed between 30 and 40% of couples wanting information about birth control. This was backed up, Coale and Hoover argued, by the experiences of centres throughout India who reported that their patients, especially fathers, were seeking sterilization. 'These scattered indications', they maintained, 'can be taken to show, not that significant reductions in fertility will occur spontaneously, but that there might be popular acceptance of effective birth control if the right methods of education, manufacture, distribution etc. etc. are discovered'.¹¹⁸

DEMOGRAPHIC TRAINING AND RESEARCH CENTER

By the late 1950s the links between demography, family planning and government policy-making were becoming more firmly established. The establishment of demography as a professional discipline in Asia, which had capitalized on and encouraged international ties, was one way that these processes were occurring. As institutes and organizations were being established, the explicit aim that demographic research would support government policy was being absorbed into the demographic institutes themselves. The establishment of the Demographic Training and Research Institute in 1957 illustrates the combined activities of professional demographers, the Government of India, and NGO's in establishing a research institute and training hub that was intended to provide training and produce demographers not only for India but the whole of Asia.

The Demographic Training and Research Centre (DTRC) was officially inaugurated by Dr. John Matthai and K.C.K.E Raja on the 5th of November, 1957. The DTRC was the outcome of the aims and goals of several organizations, and the Government of India, the Sir Dorabji Tata Trust and the United Nations had collaborated to ensure its creation. The first ideas for the DTRC at the UN emerged in 1955, when the Population Commission suggested the establishment of regional training centres in demography. The ESRC took up this suggestion, proposing that the UN should find a way to facilitate co-operative relationships between scientific institutions in underdeveloped regions, which could study population problems and strain personnel on a local basis. In so doing, the UN would be helping to establish a network of population research institutes that NGOs and Foundations could also participate in.¹¹⁹ This proposal – for regional centres in Asia – was discussed at the UN's Asia and the Far East Seminar on Population held at Bandung in 1955, and was endorsed by ECAFE. Coinciding with a

¹¹⁸ Ibid, p.61

¹¹⁹ United Nations, *Demographic Training and Research Centre, Inaugural Conference, Bombay* (New York, 1958), p.1

desire for a similar development on the part of the Government of India, the UN, Indian Government, and Tata Trust agreed to act; the UN was to pool its resources with those of the Bombay Centre to create the DTRC. The role of the UN was primarily 'technical' – they supplied experts, consultants and fellowships for trainees (from India and throughout Asia), as well as providing books and equipment. Demographers present at the Conference – notably Halvor Gille, who worked out of the ECAFE headquarters – drew attention towards the importance of international networks in establishing demography and the study of population problems in Asia. Gille noted how the programmes of the UN had been 'reoriented to provide more direct assistance to [Asian and Far Eastern] countries'.¹²⁰ The DTRC, Gille hoped, would be able to produce trained demographers who could work throughout the region conducting research that was of 'direct interest to various countries of the region'.¹²¹

Matthai's inaugural speech at the DTRC in 1957 stressed the economic and social consequences of population. They constituted what he saw to be the primary concern of the DTRC, particularly as India was undertaking programs of economic development. These points were closely linked to family planning, through a discussion of the 'social' dimension of the population problem and its links particularly to women.¹²² The Minister of Health D.P. Karmakar, in his speech, made clear the links between demography, population and the aims of the Government. Echoing arguments made throughout the 1950s, he claimed that the problem was not a lack of desire to act, but rather a lack of accurate information on demography, and a lack of trained personnel who could carry out the needed demographic research.¹²³ Thus, in addition to the DTRC, the Government of India was also supporting demographic training and research at the Indian Statistical Institute and the Delhi School of Economics, with plans for a fourth centre in South India. The DTRC, Karmakar explained, was intended to train students in demography, and to assist in conducting research throughout Asia.¹²⁴ It would act to 'build up a nucleus of persons in each country of the region with a sufficient knowledge of demography to plan and carry out such population studies as the Governments and universities might wish to sponsor. In turn...they should train other persons to undertake research for providing information on population questions of interest to the various Governments in connexion with their development programmes and policies'.¹²⁵

Many of those who came together to form the DTRC had already been working within India (and Asia's) pre-existing demographic infrastructure. The Gokhale Institute had been

¹²⁰ Ibid, p.6

¹²¹ Ibid

¹²² Ibid, p5

¹²³ Ibid, p.6

¹²⁴ Philip Hauser and Otis Dudley Duncan, *The Study of Population*, p.256

¹²⁵ United Nations, *Demographic Training and Research Centre, Inaugural Conference*, p.7

conducting demographic research since the 1940s. Gunnar Myrdal – who chaired the session on the Demographic Situation in Asia and the Far East, had along with his wife Alva Myrdal, who had just stepped down as head of UNESCO's Social Science division, had ties to Chandrasekhar and the work of the IIPS. Chairing the session, Gunnar Myrdal argued that the region was facing 'grave demographic problems'.¹²⁶ He was concerned not only with population growth, but also what data was needed to accurately assess growth, and what policies were required to address these problems. Discussing the situation in India particularly, the participants argued that, while lack of data made population projections difficult, the available projections indicated that, between 1881 and 1951 there had been no 'substantial' change in fertility rates, while there had been a considerable reduction in mortality rates. The framework suggested by Transition Theory – advanced at the Session – suggested that India was passing through a stage of declining mortality and stationary fertility, which would fall later. However, participants expressed the concern that factors affecting fertility decline were complex and highly cultural, and that both economic and social factors needed to be considered. The ultimate concern was that, while certain cultural practices such as long lactation periods, non-marriage of widows and taboos on sex while infants remained young had acted to keep fertility rates lower, as the 'impact of modernization' become increasingly more felt, 'some of these factors may cease to operate' and that therefore 'fertility may actually increase'.¹²⁷ Those assembled concluded that hopes for a large-scale fertility decline throughout a modernizing India therefore depended on the adoption of family planning practices. Drawing off of the sample research conducted during the early 1950s, they argued that there was a desire on the part of both rural and urban people to practice family planning, they were hindered only by a lack of knowledge and a lack of family planning methods. Significantly, participants highlighted that family planning required a strong national programme to be successful. They argued that the key element for success was 'strong motivation', and that, 'On balance, it appears that in the absence of a nation-wide programme for family planning, Indian fertility will fail to decline rapidly and may even show signs of increase'.¹²⁸

The Second Five Year Plan is often referred to as one of the first transitional periods in India's family planning program. The First Plan Period – often seen as one of passive research, or relative inaction – was pushed aside in favour of the more active and interventionist policies of the mid and late 1950s. During this period, new field experiments were begun, contraceptive methods were trialled, and vasectomy began to emerge as a policy promoted first by States, but later the Central Government. At the same time, the Government broadened family planning to include demographic study and research. The significance of this was felt both in the way that

¹²⁶ Ibid

¹²⁷ Ibid, p.13

¹²⁸ Ibid

family planning programmes developed, but also how demographic research was conducted. Over the course of the 1950s and into the 1960s, as the infrastructure for demographic research and family planning became more established, and more intertwined, the emphasis on the demographic arguments being made about the population problem changed. The research conducted in the early 1950s demonstrates the initial stages of this, moving towards fertility studies, socio-economic research and attitude and practice surveys. By the end of the 1950s, these had become firmly entrenched as the main concerns of demography, eclipsing the arguments made in the 1930s and 1940s that primarily related the population problem to resource, and especially food, availability. This change is clearly demonstrated in the kind of research that comes to dominate demography in India by the 1960s – the knowledge, attitude and practice survey.

It was acknowledged during the investigations into family planning and population growth during the First Five Year Plan period that, as matters stood by the mid-1950s, no 'lasting solution' could be implemented because the necessary social, institutional and economic steps required to increase motivation for family planning remained unclear. This problem – of motivation, family planning, and the social, institution and economic determinants of high population growth – was adopted in the policies and research aims formulated during the Second Five Year Plan period. Motivation in particular, which had emerged as a category of interest during the early 1950s came to dominate demographic research by the 1960s.

CHAPTER FOUR: RESEARCH, ACTION AND EXTENSION EDUCATION IN THE THIRD FIVE YEAR PLAN

The concern raised by demographers and other population experts about the rate of population growth by the end of the 1950s was echoed in a number of significant developments that, taken together, helped produce a radical shift in how the Government of India envisaged and implemented its population policy over the course of the 1960s. The 1960s were believed to be a crucial period for securing India's development, economic and welfare goals. The 'crushing liability' of population growth for development was being increasingly emphasized towards the end of the Second Plan. While many acknowledged that the Government had thrown its support behind family planning, the program was argued to be 'too small and experimental'.¹ The need and desirability of foreign aid, and the role of population in national planning were becoming far more closely bound together in the 1960s.

The First and Second plans oversaw the limited expansion of the programme to 1,800 clinics by the end of 1961, a six-fold increase in contraceptive sales, as well as rise in sterilization acceptance and general family planning awareness.² In total it was estimated that 2.1 million people had received information on contraception and family planning by the start of the Third Five Year Plan.³ While early demographic research had focused on the importance of demographic data for policymaking, by the end of the Second Five Year Plan demographers and population experts were increasingly arguing for the state to take a stronger role in the implementation of the family planning program in support of development goals. The role of the state in family planning, and the role of demography in supporting the state had become a significant concern.

The shift from the clinic approach of the First and Second Plan periods to the extension education and IUCD approaches of the Third Plan is typically approached in terms of the growing importance of family planning techniques, particularly of the IUCD and sterilization.⁴ However, the shifts in the programme itself – the implications of the move from the clinic approach, to the extension education approach, and then to the IUCD approach – are poorly

¹ V.G Verghese, 'The National Scene: The Next Five Years' July 30, 1958 *The Times of India*

² Savitri Thapar, 'Family Planning in India' *Population Studies* 17:1 (1963), p.15

³ Ibid

⁴ See for example, Nilanjana Chatterjee, Nancy Riley, 'Planning an Indian Modernity', p.826; Rosanna Ledbetter, 'Thirty Years of Family Planning in India', p.741; Matthew Connolly, 'Population Control in India: Prologue to the Emergency Period', *Population and Development Review* 32: 4 (2006), p.645

understood. Matthew Connelly argues that this shift was part of the changing tactic of the Government, derived from the methods of the Khanna study, to 'find people where they live and breed'.⁵ Emphasizing the links between the changing approach and the rising popularity of sterilization, Connelly argues that the 1960s witnessed not only the rising importance of new methods of family planning, but also the consolidation of the population control movement.⁶ Nilanjana Chatterjee and Nancy Riley, who otherwise emphasize the importance of the Government's strategy of 'convincing people small families are desirable', do not discuss family planning education in the context of the Third Plan.⁷

This chapter argues that the changing approaches to family planning and population control that occurred during the Third Plan reflected a broader contest between competing models of social change and development. Though emphasis is typically placed on understanding the period through the changing family planning technologies and their relationship to policy, recent work by Corinna Unger has highlighted the importance of the short-lived extension approach. She links the practice of identifying 'natural leaders' employed in the extension education approach to the growing importance of behaviouralist ideas in family planning in the early 1960s, and the belief that it was possible to 'govern people's behaviour in a democratic way'.⁸

Looking at the shift from the research-cum-action plans of the 1950s to the action-research plans of the 1960s reveals the changing emphasis towards taking action that emerged in the Third Plan period. However, this was as much about trying new methodological approaches to family planning as it was about new contraceptive approaches, shown in the growing emphasis on motivation and behavioural change in the family planning programme. Accompanying these changes were a shift in emphasis from individuals to small groups, which was challenged in the mid-1960s with the introduction of the IUCD. Most importantly, the change between the various programmes of the Third Plan, from clinics, to extension education, to IUCD indicates the changing relationship between population, family planning and national development over the first half of the 1960s.

⁵ Matthew Connelly, *Fatal Misconception*, p.192, 'Population Control in India', p.654

⁶ Ibid, p.194

⁷ Nilanjana Chatterjee, Nancy Riley, 'Planning an Indian Modernity', pp.826-829

⁸ Corinna Unger, 'Family Planning – A Rational Choice?' in Heinrich Hartmann and Corinna Unger (eds.), *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*, p.65

THE CHANGING EMPHASIS OF POPULATION DISCUSSIONS

The logic driving the inclusion of a population policy in the First Five Year Plan had been the need to regulate population growth according to the main aims of development: to raise standards of living. Population increase was acknowledged to be potentially problematic in the fulfilment of this aim, and so family planning was cautiously advocated – ‘the reduction of the birth rate to the extent necessary to stabilize the population at a level consistent with the requirements of national economy’.⁹ The First Plan recognized that a large part of success would derive from creating a ‘sufficiently strong motivation’, in addition to the provision of contraceptives and clinics. The same logic – of development objectives supported by family planning – had shaped the early research conducted during the 1950s, which was largely devoted between 1951-1956 to studying the rhythm method, and to establishing the utility of demographic data – particularly on fertility growth – for policy making. By the end of the Second Plan period, however, the emphasis among population experts was beginning to change, particularly regarding the role of the state in implementing family planning. The idea that ‘the first step’ in the family planning program ‘was awareness’ had characterised the research and program efforts of the 1950s.¹⁰ By the 1960s the program and research were moving beyond awareness to action, but action was not unguided. People were aware of family planning, the research had shown, but needed to be more educated about their options, and they had to have access to those options.

These were the two considerations that shaped the implementation of the family planning program in the early 1960s. Twenty-six KAP surveys had been conducted up to 1962. It was argued by population experts that these had demonstrated that while people largely approved of family planning, they were not highly motivated to practice it.¹¹ Research had also indicated that, removed from clinic services, family planning was poorly understood – people often believed it meant having no more children entirely – or that child spacing could be achieved through the practice of traditional rituals such as women counting the number of beams or girders in the house during childbirth, to know the number of years until the next child would be born.¹² The KAP surveys also revealed that most people had an ideal family size of four children, or three in urban areas. The lessons from the surveys were that women were more likely than men to be receptive to family planning, particularly women who were older than thirty-five, and who had more than four living children. Men’s attitudes, S.N Agarwala

⁹ First Five Year Plan, <http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html> [date accessed, 22/03/2015]

¹⁰ Sripati Chandrasekhar, ‘Family Planning in Rural India’ *Antioch Review*, 19:3 (1959), p.401

¹¹ Savitri Thapar, ‘Reviewed Work: Attitude towards family planning in India, by S.N Agarwala’ *Population Studies* 18:2 (1964), p.197

¹² S.N Agarwala, ‘Population Control in India: Progress and Prospects’ *Law and Contemporary Problems* 23:3 (1960), p.585

noted, were largely unknown, and particularly in rural areas contraception was not generally a topic of discussion among couples.¹³ Educational projects, it was noted, could help persuade couples – especially women – to be more open about their contraceptive preferences. All of this was, however, in vain if simple contraceptives were not easily available to people. ‘The village folk can be won to contraception’, Agarwala argued, ‘provided a well thought out education program is launched to overcome their prejudices’.¹⁴

Addressing the Sixth International Conference on Planned Parenthood, held in New Delhi in 1959, Jawaharlal Nehru presented a cautionary argument to the assembled Indian and international delegates. The ‘tremendous crisis’ of India’s population growth was, he noted, predominantly an American and European fear. ‘They are frightened of the vast masses of Asia becoming vaster and vaster, of the populations of India, China and South East Asia somehow swarming all over the place’.¹⁵ In Asia, he argued, a different approach was needed than arguments based in fear. Referring directly to India, Nehru noted the role of population in the process of National Planning. ‘The first thing we have to consider, in planning for the Third Plan, is what will be the population for which we are planning’.¹⁶ This involved coming to grips with the future, and population as an integral part of that future, not as an abstract or theoretical concept, but as ‘the actual figure for which we have to plan in terms of food, clothing, housing, education, health, work etc.’¹⁷ Only when this ‘actual figure’ had been ascertained would the scale of the potential problem be realized, and the necessity and urgency of controlling population growth fully felt.

Nehru also strongly stressed the need for a greater effort towards social and economic development. No matter what cheap, easy and effective contraceptives were available, he argued, they would not matter unless other, broader levels of advance in standards of living were felt by everyone, across the whole country.¹⁸ Accepting the economic need for family planning and, more guardedly, the potential benefit of a family planning program closely focused on individuals, Nehru was nevertheless cautionary about the nature of the overall plan. Unless family planning retained its position as a sub-element of broader scheme of efforts to raise the standard of living, ‘its advance would be too rapid’.¹⁹ ‘Some of us’, he noted, ‘really

¹³ Ibid, pp.586-587

¹⁴ Ibid, p.592

¹⁵ Jawaharlal Nehru, ‘Inaugural Speech’ International Planned Parenthood Foundation, *Sixth International Conference on Planned Parenthood: Report of the Proceedings, New Delhi* (London, 1959), p.7

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Ibid, p.8

¹⁹ Ibid

have arrived at the stage of advocating family planning because...in our thinking of national planning it has become inevitable in that context'.²⁰

Much of the work to generate the strong links between the need for family planning to ensure development being criticized by Nehru had emerged out of the research work done during the 1950s, most famously expressed by Coale and Hoover the year previously. Many of those present at the conference were continuing to develop their arguments, often to more radical ends. Julian Huxley argued that Coale and Hoover's study had shown the pressing need for birth control to ensure India would 'break free' from underdevelopment – without this, and faced with an unchecked birth rate, India would always lack the necessary capital to properly finance industrialization and development.²¹ Given this, Huxley argued, the 'disparity in expenditure' on birth control and death control was counter-productive: 'The Second Five Year Plan allocated \$10 million for population planning but over \$50 million for medical health programmes, which will inevitably help to unplan population'.²² Instead, what was needed was the 'balancing of death control by birth control' as a matter of 'utmost urgency'.²³

Other research and training organizations had been formed by the late 1950s in the wake of the increased Government interest in demographic research and population policy making. The Institute of Economic Growth, established with the assistance of a substantial Ford Foundation grant at the University of Delhi, was intended to investigate 'problems of growth', as well as serve as a centre for training and research methodology.²⁴ One of the functions of the Institute was to host seminars to provide a venue for social scientists and researchers to come together, and the early efforts of the Institute in doing this were realised as two seminars - the first on industrialization, and the second on population growth and economic development. Taking stock of the developments throughout the late 1940s and early 1950s, and looking ahead to the 1960s, four main themes were discussed at the population seminar: future growth, employment, population policy, and the problem of demographic research.

The seminar was inaugurated by the Minister of Health, D.P. Karmakar, who stressed the urgent need for demographic research, particularly in rural areas on the 'social and economic factors which may stabilize the population and to collect data immediately which may assist those engaged in the Family Planning Programme'.²⁵ The Seminar was attended by many

²⁰ Ibid

²¹ Julian Huxley, 'Population Planning and Quality of Life' *Sixth International Conference on Planned Parenthood*, p.25

²² Ibid, p.26

²³ Ibid

²⁴ S.N. Agarwala, 'Overview and Conclusions' in S.N. Agarwala (ed) *India's Population: Some Problems in Perspective Planning* (New Delhi, 1960), p.i

²⁵ D.P. Karmakar, 'Inaugural Address' in S.N. Agarwala (ed.) *India's Population*, p. xxxvi

of the most prominent members of the demographic and population community, including C. Chandrasekharan, S.N Agarwala, S.P Jain, KCKE Raja, VKRV Rao, Gyan Chand, B.L Raina, Frank Notestein, Marshall Balfour, and Moye Freeman. The research conducted over the 1950s, and particularly Coale and Hoover's study, had caused considerable concern over how to accurately project future growth in the context of economic planning. Looking back to the projections made in the early 1950s by R.A Gopalaswami in the 1951 census and by Kingsley Davis in his demographic survey, the problem of the rate of growth of the Indian population was emphasized. Both Gopalaswami and Davis had predicted, as the 'high' rate of growth, rates of 1.2 or 1.3% per year. The Planning Commission had worked on the assumption that growth would remain at 1.2% per year for 1951-61, and 1.3% for 1961-71.²⁶ Coale and Hoover's study had challenged these estimates, and their research appeared to be supported by the research conducted at a number of the research institutes throughout India.²⁷

The reliability of demographic projections, and the assumptions inherent in them were key points of concern being discussed, particularly for the period after 1966. The problem was twofold – gauging the effect of the birth control programme on birth rates, as well as predicting, as Coale and Hoover had tried to do, the probable rate of decline in mortality rates after 1966. This was particularly important given the emphasis being placed on the 'quantitative' population problem. The Seminar agreed that 'clearly India cannot afford the luxury of having such a large population', and emphasized the 'necessity of adopting measures for a rapid control of India's population'.²⁸

The narrowing down of options – including of migration and development - to the limiting of population growth was an outcome of the research and projections that had occurred during the 1950s. The joint emphasis that was placed on measuring how much people wanted birth control, combined with the rising growth estimates, meant that demographers and policy makers were increasingly turning towards the wider and more effective implementation of the family planning programme, despite the fact that the research findings of many of the early investigations, such as the Khanna study, were already beginning to doubt their initial findings. There had been a 'conspicuous change' in the attitudes of people towards family planning, which left family planning motivation as a possible solution: 'The thing to be emphasized is motivation...we must learn how to be efficient in grafting the small family ideal on the existing culture. The field for research and experiment is very large and a beginning has scarcely been made. Yet this is the problem that must be solved and without its solution even

²⁶ Ibid, p.xv

²⁷ Ibid

²⁸ Ibid

perfect contraceptives will probably have little effect'.²⁹ In addition it was argued that existing policies needed to be advanced on a more serious basis. The First and Second Plans had promoted family planning as part of their health policies; but the Seminar argued that family planning should be included as part of the Community Development projects being undertaken by the Government, as this would be particularly helpful for taking family planning into the rural areas. Recruiting village teachers, midwives, and village post offices to spread the message – and to stock and sell contraceptives – were all options being discussed.³⁰

The role of population and family planning in national planning was being considered during the planning process for the Third Five Year Plan. Demographers had been strongly advocating for the more serious implementation of the population policies since the mid-1950s. The inaugural conference of the DTRC in 1957 and of the IEG Seminar in 1959 had seen numerous calls to action and the more effective implementation of the family planning program. Demographers were increasingly calling for family planning to be tied to Community Development and Agricultural extension programs, in an effort to reach deeper into rural areas.

NATIONAL PLANNING, INTERNATIONAL AGENCIES

International agencies like the Rockefeller Foundation and the Population Council had been involved in population research, and population policy making in India since its inception. As these programs continued to develop throughout the 1950s and into the early 1960s the Foundation scene, particularly in America, was starting to shift. The Ford Foundation, which had been largely eclipsed in its support by other organizations – Rockefeller, Milbank and Scripps in particular – was emerging in the 1960s as one of the main sources of funding for population control and demographic research.³¹ Ford had originally sought to support population research through the short-lived Behavioural Sciences Program at the Population Council, which was shut down in 1957. By 1959, however the Ford Foundation was organizing seminars on population. In close consultation with Ansley Coale, who had taken over from Frank Notestein at the OPR, three meetings on vital statistics, fertility limitation and medical and biological research and the population problem were held.³²

The first two meetings drew together many of the influential demographers and population experts working in the United States. At the heart of the discussion on vital statistics

²⁹ S.N Agarwala, 'Overview and Conclusions', in S.N Agarwala (ed.) *India's Population*, pp.xxii-xxiii

³⁰ Ibid, p.xxi

³¹ Oscar Harkavy, *Curbing Population Growth: An Insiders Perspective on the Population Movement* (New York, 1995), p.30

³² Ibid

was the utility and necessity of data for governance – a necessary process that could be rendered faster and more accurate, it was argued, if the development of sample registration systems was supported in underdeveloped countries. In particular, the need to support the development of demographic and statistical training in developing countries was made clear.³³ The seminar on fertility limitation focused on what was argued to be the most ‘promising approach’ – communication and education. The seminar looked to the research being conducted in India, Japan and the Caribbean, and argued that more of this type needed to be supported.³⁴

In August 1959, the Ford Foundation made good on its interest in population in India, granting \$330,000 to the Ministry of Health to support the first phase of a ‘five year program of training and research on the communications aspect of India’s family planning effort’.³⁵ The optimism of the Foundation regarding the possibility that the population could be reshaped, Harkavy argues, was reflected in this period by the Foundation’s early mission statement, to: ‘maintain strong efforts both in the United States and abroad to achieve breakthroughs on the problem of population control, including training and research in demography, the motivational factors in family planning, the practical and social consequences of population control, and the pertinent areas of science, medicine and public health’.³⁶ Lead by Douglas Ensminger, the Ford program built on its initial efforts, which had been to support the development of demographic research and research training centres, into more broad-based support for social science research and action programs which would focus on the ‘whole’ population problem.³⁷ Support for these programs was to come from Governments, and Ford’s role was to be ‘institution building and nurturing local expertise through technical assistance’.³⁸ The program was also aimed at recruiting and training a ‘national and international managerial elite’ and to create a ‘diverse network of experienced population experts’. However, the overarching mission of Ford in India as Ensminger saw it, was to show the Government of India ‘how to get a larger job done’. Part of this job was to establish semi-governmental institutions, and to begin a program of mass communication in family planning.³⁹

³³ Ibid

³⁴ Ibid

³⁵ Ibid, p.32

³⁶ Ford Foundation Mission Statement (1953), quoted in Oscar Harkavy, *Curbing Population Growth*, p.39

³⁷ Kathleen D. McCarthy, ‘From Governments to Grass-Roots Reform: The Ford Foundation’s Population Programmes in South Asia, 1959-1981’ *Voluntas: International Journal of Voluntary and Non-Profit Organizations*, 6:3 (1995), p.295

³⁸ Ibid

³⁹ Ibid, p.296

Marshal C. Balfour recorded some of the early confusion that accompanied Ford's project. Douglas Ensminger had reported that the project was to be attached to the All-India Medical Institute, that it had Health Minister Rajkumari Amrit Kaur's and Nehru's approval, and that it could nevertheless still face difficulties in the Ministry. Moye p, one of Ford's senior consultants in India who was keen to work on communication and family planning, reported that Raina intended to establish two committees – one educational and technical and the other administrative that would have similar standing to the Family Planning Board. Under this plan, there would be a Communications Bureau under the control of the Central Health Education Bureau, with Ford financed staff and as well as 'research-cum-action functions', to be developed and controlled by the Government.⁴⁰ Balfour was suspicious of this arrangement, noting that the Ministry was 'determined to control the operation and funds' and 'hence there is a dim outlook!'⁴¹

The differing views on research and the role it should play in forming population policy were being contested by the early 1960s, and an often heated site of this contestation was between the aims of the Foundations and the goals of the Government of India. While many of the NGOs – and particularly the Foundations – were encouraging greater emphasis on research projects, the Ministry of Family Planning was turning away from these suggestions. This was highlighted in 1959. Writing to B.L Raina, the Director of Family Planning, Notestein stressed the importance of conducting research, and in particular pilot projects, to investigate the variables associated with the implementation of family planning programs and the use of contraceptives.⁴² B.L Raina, however, had come to the conclusion that the research thus far conducted in India had been largely useless. The Harvard-Ludhiana project in particular, he noted, had been a long research project that had 'not produced any useful results'. Research, Raina argued, should be a process of trialling programs in the field, and then pressing ahead with their implementation.⁴³

Raina, W. Parker Mauldin and other researchers associated with the Population Council had met in Delhi to discuss the Council's proposed pilot research projects. In this meeting, Raina had been explicit about his aims and goals – 'I have a one-track mind, I want a quick action program, as ideas develop I want them tried out in field units'. What Raina felt was needed was the 'field trial of programmes, of parts of programmes, specific media, etc'. 'We have formed a skeleton', he told those at the meeting, 'and now we want to put on some flesh'.⁴⁴ The Population Council and the Ford Foundation – who were going to implement what Raina

⁴⁰ MCB Diary Note, May 27th, 1960, Population Council, Acc.2, B84/F796 [RAC]

⁴¹ Ibid

⁴² Frank Notestein to B.L Raina, 2nd December, 1959, Population Council, Acc.2, B83/F795 [RAC]

⁴³ W. Parker Mauldin to Dudley Kirk, 3rd May 1960, Population Council, Acc.2, B84/F796, [RAC]

⁴⁴ W. Parker Mauldin Diary Notes, May 3, 1960, Population Council, Acc.2, B84/F796 [RAC]

referred to as the 'Ensminger Plan' – were two organizations that could help these goals to be achieved. Consultants, Raina argued, were valued by the Ministry, but they needed to be senior people, and they needed to be prepared to work with, and from, New Delhi.

Raina's programmatic emphasis and keenness for action was indicated in his endorsement of certain lines of research. The Population Council Units could test and research the health education materials and then extend that research into other areas. This was not the project that the two Population Council researchers had proposed, or that they wanted to conduct – they wanted to investigate the utilization of personnel, the existing personnel in the field, and conduct an 'analytical study of educational materials'. Raina's reply to their objections to this effect was simple, and indicated how approaches to family planning in India were beginning to change: 'In the past, we have concentrated on the personnel approach because we have realized the matter of control of family size is an individual problem. But even if this approach is good, it can't be carried out because of the large population in India. Therefore, we want to try a small group approach'.⁴⁵ An approach, he noted, that had already been trailed at Singur.

The relationship between economics, social characteristics and their correlation with family size was already being studied by the demographic institutes, Raina noted. They would likewise study the effect of migration on fertility and population growth. With this data, they had the general skeleton: 'we started out by talking about man and his relationship to the external world. It is for you to put flesh on this'.⁴⁶ All kinds of ideas, he said, needed to be tried in the field. The films of health educators, different channels of communication, and so on. The program needed to move quickly, and to get results quickly. Population Council Units, he said, could be part of this vision by testing media. The Population Council researchers again challenged Raina over the utility of research programs over action programs. 'You are interested', they argued, 'in finding out ways to carry out a program. We are interested in working in such a program but underlying the action program should be a research program'.⁴⁷ The result, however, was that the pressure of time was too great. 'My feeling is that we have sufficient data to go ahead', Raina maintained.⁴⁸

W. Parker Mauldin, discussing these ideas with Dudley Kirk, argued that such an approach, while a good action research methodology, 'was not research'. Furthermore, Maudlin noted, 'I think it is fair to say that what he really wants is foreign aid in the form of vehicles, dollars for books and so on, and occasional consultants...but what he does not want is real

⁴⁵ Ibid

⁴⁶ Ibid

⁴⁷ Ibid

⁴⁸ Ibid

research'. The 'action-orientation' of the Ministry was one that had the potential to 'close the door' on the research-led relationship between the Government of India and the Population Council. Moyer Freymann had also been worried, Mauldin noted, and had begun to consider moving his project away from the Government into another Institution.⁴⁹

PUTTING FLESH ON THE SKELETON

The first meeting of the Family Planning Communication and Motivation Action Research Committee in 1960 addressed the dual role of research and action, and the need for both – though emphasis on action was again highlighted. 'Research-cum-action' was the traditional term, Health Minister D.P. Karmakar noted in his welcome speech, but the tendency of the researcher to hesitate, and often to promote ever more research was problematic. Action research, on the other hand, changed the emphasis – 'Research is important and imperative, but I would like to urge that the problem is now so urgent that concurrent vigorous action should not be prevented because all the information we want is unavailable'.⁵⁰ There needed to be a better understanding of the 'basic factors' that impacted on family planning acceptance, and more investigation into the 'social, economic and physiological factors' which influenced decisions about family size, as well as about how people acquired their family planning knowledge. A variety of 'mental studies' in addition to operational research were therefore needed, Karmakar argued.⁵¹

The proposed Communication Action Motivation Programme that had been suggested was, he pointed out, the first of its kind. It was the result, in part, of the proposal from the Ford Foundation to 'assist in developing research in the communication aspects of the Government programme'. To this effect, they noted, Ford had offered a grant of \$330,000.⁵² It had been determined that all amounts of money made available by the grant would be used for solely educational purposes. The Ford representative would be kept apprised by the Government of program progress. The Government also agreed that a portion of the grant would be kept aside to fund fellowships for selected candidates.⁵³

The basis for this program was the belief that success for family planning would occur only if 'strong motivation' could be generated among people – it was necessary to 'change the

⁴⁹ W. Parker Mauldin to Dudley Kirk, 3rd May 1960 Population Council, Acc.2, B84/F796 [RAC]

⁵⁰ India: Ministry of Health, *Proceedings of the First Meeting of the Family Planning Communication and Motivation Action Research Committee*, 10th August, 1960 (Delhi, 1964), pp.2-3

⁵¹ Ibid, pp.3-4

⁵² Ibid, p.9

⁵³ Ibid, p.9

patterns of behaviour of individual parents'.⁵⁴ The goals of the Communication Action Motivation Research program were to provide a clearer understanding of family planning acceptance, and to use this to develop more effective family planning programs'.⁵⁵ The 'action and research activities' were to be undertaken in both urban and rural areas, from a number of regional centres. The primary goals of these centres would be to conduct background studies of factors influencing family planning, to study the 'specific programs', and to explore specific educational techniques. The emphasis on specific approaches was crucial, as they were intended to address the factors 'hindering programme progress', though there was also provision for longer-term research 'for the purpose of building effective programmes'.⁵⁶

Moye Freymann had been present at the Family Planning Communication and Motivation Action Research Committee Meeting as a representative of the Ford Foundation. A Ford Consultant working Delhi, Freymann had been involved in research programs exploring the spread of latrine use throughout India. Freymann understood, in line with prevailing opinion, that the population of India if left to grow unabated would threaten developmental, economic and social progress. 'Forces favoring the adopting of the norm of smaller family size', such as urbanization, industrialization and education, were proceeding too slowly. The national family planning program, however, could help to change that.⁵⁷ Freymann argued that fertility was high in India because, while there had been a general (albeit slight) decline in the crude birth rate, declining mortality had reduced widowhood, and increased prosperity had likewise increased family size.⁵⁸ Cultural factors, and especially the desire for sons, also encouraged high birth rates. In addition, social legislation had acted to encourage rather than to discourage high fertility. Women had not yet entered the labour force in a significant way, and while some States were offering incentives for sterilization, none were offering incentives for smaller families, or to significantly raise the age of marriage.⁵⁹

Freymann emphasized the research being conducted on family planning attitudes as holding the possibility of a solution – research had shown, he maintained, that ideal family size was three or four children, a figure not 'too far apart' from the number of (surviving) children families tended to have.⁶⁰ The community approach being followed as part of the Second Plan – and to be implemented in the Third Plan building on the community education techniques found effective in other development programs would cement the move away from the clinic

⁵⁴ Ibid, p.11

⁵⁵ Ibid, p.14

⁵⁶ Ibid

⁵⁷ Moye Freymann, 'Population control in India' *Marriage and Family Living* 25:1 (1963), p.54

⁵⁸ Ibid, p.55

⁵⁹ Ibid

⁶⁰ Ibid

model. Freymann saw the family planning movement in India a progression through different stages of 'acceptance'. During the immediate post-war period, and during the First Plan, the work of Indian intellectuals and social reformers had convinced the Government of India to accept that family planning was needed on a national-scale, and that such a program would be both 'politically and technically feasible'. The Second Plan, he argued, had been a period of intensified educational work through mass media, combined with the expansions of clinics and of research. The stage was set, however, for a shift, and research – particularly programmatic 'action research' held the answer. The role of the 'social researcher', he argued, was to clarify the 'problem of program development through...' 'diagnostic' studies and assessment of the total impact of the program on the target population'.⁶¹

Action research, then, was one of the most pressing and promising avenues for family planning – and the problem of 'finding ways of bringing people to change and adapt their family behavior' was of great interest to him.⁶² Action research and the research on the introduction of new behaviors and practices was not unknown in India. Agricultural researchers had been investigating these problems for a number of years, pioneering the research-cum-action project in Environmental Sanitation.⁶³ While there were few overt similarities, Freymann argued that the principles at work, and the ability to change 'deep rooted patterns of behavior' were closely related to the aims and goals of the family planning project. Action research in the context of family planning 'would have the goal', he explained, 'of evolving methods whereby populations can be educated to accept contraceptive practices'.⁶⁴ This was no different to other projects being carried out to convince people to build and use latrines, he noted.⁶⁵ Research design in such projects was long-term and highly controlled, to establish comparability. There were, however, some problems associated with this kind of research he admitted, which included high-cost, rigidity, and the intensive effort required, which had to be sorted out.

The most useful method, he argued, was one that was cyclical – trying a method, evaluating and reforming it, and trying again. Each new formulation, he explained, could be tested in a new village. What was needed to conduct these studies were researchers with good knowledge of behavioral sciences, and who could live for a time in the area under study.⁶⁶ Investigators needed to look to the existing contraceptive and sexual practices, and to beliefs about reproduction and conception and values related to family planning. Likewise, the

⁶¹ Ibid, p.59

⁶² Moyo Freymann, 'Observations on Family Planning Research – Action Research' in S.N Agarwala (ed) *India's Population*, p.198

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Ibid, p.199

⁶⁶ Ibid, pp.199-200

methods and channels of communication, within families and on a larger scale, as well as the 'feasibility' of family planning all had to be considered. All of these investigative efforts had to be accompanied by a reliable way to measure success; be this knowledge of family planning or of contraceptive methods, or 'acceptance' of contraception, backed up by statements that the contraceptives were 'actually being used'. Other measures could include the duration of the pregnancies, length of time between births, and pregnancy and birth rates.⁶⁷ Freymann and the Government of India were thus ideologically and methodologically in-line. A great deal of research into family planning communication and action was undertaken as a result of the formation of the program, and of the emphasis laid on education in the Third Plan.

In the discussions being held by the Family Planning Action Research Committee, and among Government and Foundation officials emphasis was placed on the relationship between planning, research, and the ability to change people's social practices – particularly their reproductive practices. The report of the Mudaliar Committee and the 1961 Census Report helped to cement in policy the shift that had already begun in thinking of population professionals – adding that family planning policy had to be divested of its emphasis on health, and reoriented towards the economy. The Health Survey and Planning Committee (Mudaliar Committee), was established in 1959 by the Ministry of Health to review the developments that had occurred throughout India since the Bhole Report had been published in 1946. The Committee was also to help with formulating the health programmes for the Third Plan and was charged with suggesting how the family planning program should be implemented. The Report made note of the implications of population growth for India. Working from the projections made by Coale and Hoover – that population growth would, without an adequate 'check', increase by 102% over 25 years while income grew only by 13.5%⁶⁸ - the Report highlighted the severity of the population problem for India, arguing that while there was no question therefore of the necessity for family planning to be implemented on a national scale, the effects of the program would still take time to be felt.

The purpose of family planning, the Report emphasized, breaking with earlier explanations, was to help 'accelerate the shift from the second to the fourth phase [of the demographic transition]' – in effect, to engineer a shift from a high birth-rate, low mortality demographic pattern, to a state of more-or-less balance between fertility and mortality. 'Some lag is inevitable' the Report conceded, particularly when the program required 'reaching hundreds and thousands of villages and has to contend with problems of social habits, ways of living, religious scruples, inadequate living accommodation and changing the sense of values of

⁶⁷ Ibid, p.208

⁶⁸ India: Health Survey and Planning Committee, *Report of the Health Survey and Planning Committee, August 1959- October 1961, Vol.1* (Delhi, 1962), p.397

the people'.⁶⁹ What therefore had to be done was to undertake the unprecedented task of creating a mass-movement to facilitate those social changes – including the uptake of family planning practices – leading to a significant demographic change. This was not only important for India's economic development and 'social well being' but could also serve as an example to other countries in the world that were facing similar problems.⁷⁰

The Family Planning Research and Programme Committee had, as part of the first recommendations in 1953, suggested that mass communication needed to be explored, 'to create overall attitudes favourable to the idea of family planning'.⁷¹ The Report envisaged a particular role for demography with regards to family planning in the 1960s. Noting that a national programme had been created, the problem of the specificity of local conditions pertaining to the States had been raised: 'A State where the problem is of a very serious dimension tends to be treated in the same way as another where the situation may not be as serious'. What was needed, it was argued, was a demographic, sociological and anthropological study on a larger scale, to determine the 'methods best suited to each area'.⁷² The Report argued further that

the application of a uniform pattern of population control measures throughout the country is in our view not likely to produce the optimum results on the one hand and on the other may result in undesirable repercussions which may not be discovered until it is too late. It is understood that a National Council on Population has been set up under the Chairmanship of the Home Minister. We feel that the Demographic Advisory Committee should function under the Ministry of Health, so that all population problems may come under one Ministry and be dealt with on a national-wide scale.⁷³

The additional recommendations made by the Committee included a number of possible additions to the family planning program. They suggested that to promote 'a more rapid implementation of the family planning programme' it would be worth considering, if no improvement is shown within a five year period, the 'introduction of appropriate legislative and administrative measures...in order to ensure a definite fall in the birth-rate of the country'.⁷⁴

⁶⁹ Ibid, p.398

⁷⁰ Ibid, p.398

⁷¹ Family Planning Research and Programmes Committee, *Proceedings of the First Meeting of the Family Planning Research and Programmes Committee* (Delhi, 1953), p.44

⁷² Ibid

⁷³ Health Survey and Planning Committee, *Report of the Health Survey and Planning Committee*, August 1959- October 1961, Vol.1, p.402

⁷⁴ Ibid, p.406

These suggestions were: 1) 'A graded scale of taxation from the fourth confinement onwards' – this would act as a deterrent and would be a progressive tax depending on family income. 'It may be objected', it was noted, that those who contribute most to population growth are the people at low levels of family income, that their ability to pay the suggested tax...is doubtful and that the imposition of this penalty...may result in such an inroad into their meagre incomes as to reduce further the existing low standards of life of such families'.⁷⁵ The report did not deny the force of these arguments, but countered that all lines of inquiry needed to be explored. A second suggestion was to offer sterilization to mothers of two healthy children, and that 'apart from the operation being offered to her free of charge, she would be given a prescribed amount as honorarium for the performance of what is deemed to be a national service'.⁷⁶ Only women who refused to accept this 'national service' would be charged the tax after their fourth pregnancy.

Other suggestions included removing the 'disadvantages regarding income-tax in respect of unmarried persons', the 'withdrawal of maternity benefit in the case of those refusing to accept family limitation', the 'limitation of certain free services rendered by the State to children', including free education, which was proposed to be limited to three children in each family only, as well as 'increasing participation by employees of governments, local bodies and aid institutions in the spread of family planning', who 'should be encouraged to take an increasing part in spreading the contraceptive movements', and to consider making abortion available for 'socio-economic reasons'.⁷⁷ This was the only suggestion that the Committee was unwilling to recommend on a large-scale 'as a legalised measure to combat successfully the population problem of the country'.⁷⁸

THE THIRD FIVE YEAR PLAN

In the period following the Second Plan, the family planning program in India was re-worked. The evidence of growth from the 1961 census – 30 million higher than projected – had 'badly skewed' planning projections.⁷⁹ This revealed 'weaknesses in the clinic system', which had failed to lead to a significant lowering of the birth rate since 1951. Under the Third Plan the Government increased the family planning budget 'ten fold', and for the first time set a target

⁷⁵ Ibid

⁷⁶ Ibid, p.407

⁷⁷ Ibid, pp.407-410

⁷⁸ Ibid, p.410

⁷⁹ Kathleen D. McCarthy, 'The Ford Foundation's Population Programs in India, Pakistan and Bangladesh, 1959-1981', (1985) Ford Foundation Unpublished Reports, B18980/ F11011, p.11

for the reduction in birth rate – to 25 per 1000 by 1975 – and began to relinquish its ‘stifling’ dependency on the clinic in favour of the ‘extension’ approach.⁸⁰

The guidelines for the Third Five Year Plan laid out the general arguments underpinning it. The main emphasis was on monetary discipline and closer control of consumption, as well as stronger support for more intensive agricultural production. Agricultural experimentation, increased fertilizer production, and the agreement over the import of surplus wheat and rice from the United States solidified the importance of food production in the Plan.⁸¹ The Plan’s main thrust - supported by the lion’s share of the budget, was in agricultural, community, and industrial development. Population policy in the Plan was oriented towards helping to achieve these goals. The economic arguments about population that had been made during the 1950s found full expression in the Plan, which stated firmly that ‘the objective of stabilizing population growth over a reasonable period of time must...be at the very centre of planned development’.⁸²

Significantly, the Plan affected the beginnings of a separation between health and family planning; breaking from the established pattern of the earlier plans. In the First and Second Plans, family planning had been a sub-set of Health; in the Third Plan, it was presented as being on-par with Health, and the ‘very high priority’ to be given to family planning was stated explicitly.⁸³ This emphasis was demonstrated at its basic level in the financial outlay, with a high increase from the budget of the First and Second Five Year Plans being allocated to family planning. The section on family planning referred both to the initial aims of the First Five Year Plan but also to the long-range economic development goals that the Third Plan envisioned. The stabilization of population growth was considered to be essential to meeting those goals. ‘In this context’, it was argued, ‘the greatest stress has to be placed in the Third and subsequent Five Year Plans on the programme of family planning’. This ‘great stress’ was to be realized through the intensification of family planning education, of family planning facilities, and of advancing, on the ‘largest scale possible’, the extension of family planning efforts in rural and urban communities.⁸⁴ Fundamentally the Plan argued, ‘family planning has to be undertaken, not merely as a major developmental programme, but as a nation-wide movement

⁸⁰ Ibid

⁸¹ Robert H. Amundson, ‘India’s Third Five Year Plan, 1961-1966’ *Review of Social Economy*, 22:2 (1964), p.91

⁸² V.C Sinha, *Dynamics of India’s Population Growth* (New Delhi, 1979), p.442

⁸³ Third Five Year Plan,
<http://planningcommission.gov.in/plans/planrel/fiveyr/3rd/3planch32.html> [date accessed, 22/03/2015]

⁸⁴ Ibid

which embodies a basic attitude toward a better life for the individual, the family and the community'.⁸⁵

Many of the suggestions made in the Third Plan had come been recommended by the Central Family Planning Board, which had advocated in 1960 that a strong priority should be placed on family planning. Instrumental to this had been the work of Lady Rama Rao, head of the Family Planning Organization, who had been appointed to the Committee to Review the Working of Family Planning Schemes in 1959 by the Ministry of Health. In this post, she reviewed the progress of the Second Plan, and looked forward to future policies. Rama Rao sent a questionnaire to 4,801 people in the Government, Voluntary Organizations, Medical workers, and Academic Institutes to gather data for her recommendations. The results from the questionnaires indicated a number of significant trends regarding attitudes towards family planning and how it should be implemented in the future.

The majority of the respondents agreed that the primary aim of the Family Planning Programme should be to slow population growth in order to meet the ultimate objective of higher standards of living within India.⁸⁶ Rama Rao solicited information on many aspects of the ideal population that was envisioned, and the results indicated that the majority saw the ideal family size as five or less – husband, wife, and three children. Respondents advocated a range of contraceptive strategies to achieve this – including the use of many kinds of contraceptives and sterilization, but were not in favour of either the rhythm method or abortion. A minority of the respondent's indicated that they were in favour of compulsory sterilization, though the majority (79%) were in favour of voluntary sterilization, the main basis of which was considered to be family size, such that 'willing persons having three or more children should be considered eligible for sterilization',⁸⁷ and that free facilities should be provided to assist with this.

The results also indicated the prevailing opinions on abortion and the possibility of a 'birth tax', which had also been considered the Mudaliar Report. Few of the respondents were in favour of either measure. More broadly, the Central Family Planning Committee, deliberating these recommendations, came out in favour of a more limited plan of action – supporting, as had been the case in the Second Plan, the free distribution of contraceptives in rural areas and to low-income families, as well as subsidized contraceptives for lower-middle income families. Regarding the overall structure and administration of family planning, the Central Family Planning Committee came out against the creation of a Ministry of Population, though

⁸⁵ Ibid

⁸⁶ 'Suggestions of Smt. Dhanawanthi Rama Rao, Committee for Third Five Year Plan (Analysis of Replies to Questionnaire)' in Appendix A6, J.P Gupta, N.K Sinha, Amita Bardhan (eds), *Evolution of Family Welfare Programme in India, Vol. 1* (New Delhi, 1992), p.5

⁸⁷ Ibid, p.5

supported a move towards greater administrative autonomy for Family Planning within the Department of Health. While the Committee also rejected the suggestion of the 'no birth' subsidy suggested by Rama Rao, it did offer its support towards increasing voluntary sterilization, suggesting that mobile units should be developed to carry out the programme.⁸⁸

These recommendations were largely building on the family planning framework that had been established during the 1950s. The Plan however also referenced much of the demographic research that had been conducted. In particular, it referred to the field investigations that had been carried out as part of the Khanna Study, as well as the research conducted for the Mysore and Singur Studies. The impact of these studies is clearly reflected in the arguments made by the Plan regarding the specific implementation of particular policy measures. Most significantly, the Plan highlighted – as the Khanna, Singur and Mysore studies had done – the 'considerable awareness of the need for family limitation and desire for practical help and guidance' believed to be latent in the population at large.⁸⁹ The Plan emphasized the need to further develop strategies to meet the need for communication and motivation, particularly in rural areas. It also proposed a break from the clinic centred approach of the First and Second Plans, by integrating family planning with Primary Health Centres, and allowing voluntary agencies, mobile units and 'industrial and other establishments' to also take an active role in providing family planning services, particularly with regards to the distribution of 'simple contraceptives and general advice'.⁹⁰

The significant growth in funding and the projected growth in family clinics made by the Third Plan belie the significance of the shift from the clinic to 'extension' approach. The emphasis on the extension program was 'on community acceptance of revised family size norms and group influences in the formation of individual motivations favourable to rational control of family size'.⁹¹ This approach – modelled off of the experiences of the field trials and the demographic experiments conducted during the 1950s was - attempted to replicate the administrative structure of the Community Development Program and Agricultural Extension Service.⁹²

⁸⁸ 'Priority in Third Plan Suggested: Campaign to Limit Families in India', *The Times of India*, March 5th 1960, p.12

⁸⁹ Third Five Year Plan,
<http://planningcommission.gov.in/plans/planrel/fiveyr/3rd/3planch32.html> [date accessed, 22/03/2015]

⁹⁰ Ibid

⁹¹ V.C Sinha, *Dynamics of India's Population Growth*, p.443

⁹² Ibid

THE SMALL FAMILY, AND OTHER SOCIAL NORMS

By 1962 the educational program outlined in the Third Plan and envisaged by the Department of Family Planning and Action Research Committee had begun to get off the ground. 193,500 posters, 361,000 folders, 595,000 pamphlets and three films on family planning in English and regional languages had been produced.⁹³ 'Leaders camps' were being held, and the scheme of Honorary Family Education Leaders begun to be enacted. This scheme funded the Honorary Leaders – giving them Rs. 4000/month – to help 'identify natural groups and natural group leaders and use them as channels of communication'.⁹⁴ Leaders had to cover between four and five districts, disseminate family planning information, and 'mobilize public opinion in favour of family planning'.⁹⁵ Communication action research was taking place at a number of Institutes, Raina noted in his Report, and was providing a source of 'objective observation and fresh ideas about different problems of programme implementation', as well as 'field laboratories' in which to work out improved education methods.⁹⁶

Both Raina and Freymann had turned to the Institute of Rural Health at Gandhigram, in South India, to conduct 'pilot efforts in relation to population-based family planning'.⁹⁷ The Gandhigram Institute was one of the most influential institutes in shaping 'the future course of family planning in India'.⁹⁸ During the early 1960s a number of short-term studies had been carried out at the Institute on 'program implementation and factors on contraceptive acceptance'.⁹⁹ The outcome of these small-scale research projects, in conjunction with the actions taken by some of the States in the early 1960s (particularly the State of Maharashtra which had begun vasectomy camps), had led to a change in emphasis in the family planning plan. 'The proposed goal from now on' wrote Raina, 'is to accelerate the rate of adoption of family planning so as to reduce the birth rate...to 25 per 1000 population by 1973'.¹⁰⁰ Achieving this goal, he argued, could 'double the spread of overall economic development...and profoundly influence India's future history. Lack of achievement of this objective...could

⁹³ B.L Raina, *Family Planning Programme: Report for 1962-1963* (Delhi, 1963), p.16

⁹⁴ *Ibid*, p.17

⁹⁵ *Ibid*

⁹⁶ *Ibid*

⁹⁷ Oscar Harkavy and Krishna Roy, 'The Emergence of the Indian National Family Planning Program' in Warren C. Robinson, John A. Ross (eds), *The Global Family Planning Revolution: Three Decades of Population Policies and Programs* (Washington, 2007), p.307

⁹⁸ *Ibid*

⁹⁹ *Ibid*

¹⁰⁰ B.L Raina, *Family Planning Programme: Report for 1962-1963*, p.44

endanger India's national goals of social welfare and physical strength. There may be no greater challenge than to achieve reduction in birth rates'.¹⁰¹

That this goal could be achieved had been made clear by the experience and research already conducted – everything, Raina argued, pointed to people having awareness of the problem and wanting to learn more. Furthermore, there was no real opposition to family planning, which suggested the principle problem was organizational – as the Third Plan had also stated – as well as being a problem of scale. The program needed to be strong enough, and big enough, to 'accelerate the normal processes where the strong latent interest of individuals is converted into new social norms and group action'.¹⁰² Raina had set three 'operation goals'. The overarching goal was to instil in 90% of the married adult population the 'three basic conditions' needed to 'accelerate the adoption of family planning' – group acceptance, knowledge, and contraceptive supplies.¹⁰³

Group acceptance meant instilling in people the knowledge and feeling that it was better for the group to have a smaller family, and that this was 'normal, desirable behaviour'. Lacking this feeling, Raina argued, couples would hesitate to adopt family planning. With such a feeling, however, 'most couples will proceed to obtain the necessary information needed for them to conform to the norms of the group'.¹⁰⁴ Knowledge was of two types – that the smaller family was valuable, but also of contraception. This was tied into the third aspect – supplied of contraceptives needed to be readily available.¹⁰⁵ These were underwritten by a number of organizational principles, which Raina noted had emerged from the research that had been conducted to date. These principles formed the 'extension wing' of the program. The first was that groups were powerful tools that could be used to change social practices. The group was much more powerful and influential than the individual. This principle had been exploited in many public health campaigns, and had been used to change attitudes on vaccination, sanitation, and towards agriculture.¹⁰⁶ The second principle was to mobilize the group pressure effect through influential leaders, who would be encouraged to learn about, and then spread, the small family norm among their group.¹⁰⁷ The third principle involved the 'transfer of responsibility' for family planning to other groups – such as village development communities. These organizations could then adopt the responsibility for spreading family planning,

¹⁰¹ Ibid, pp.44-45

¹⁰² Ibid

¹⁰³ Ibid, p.45

¹⁰⁴ Ibid

¹⁰⁵ Ibid

¹⁰⁶ Ibid, p.46

¹⁰⁷ Ibid, pp.47-48

education and the distribution of contraceptives.¹⁰⁸ Male personnel were essential to the extension approach – they could read the leadership groups in the population, and helped rapidly strengthen the existing family planning structure.¹⁰⁹

The contraceptive supplies were included as a principle as well – ‘the use of family planning methods is a social process’, Raina argued, and contraceptive use was part of that process.¹¹⁰ By introducing contraceptives into the ‘normal supply chain’ – those used by other goods – contraceptives would become normalized. The commercial distribution of contraception was of ‘extreme importance’ and mass manufacture of contraceptives, particularly condoms, needed to be urgently stepped up.¹¹¹ All of these factors, goals and aims were combined into a revised family planning program, known as the ‘extension approach’. Raina outlined how the revised plan would work at each level, from the Block to the Centre, stressing the need to take family planning out of the clinic and into the community.

THE EXTENSION APPROACH

The family planning program of the Third Plan was reviewed in 1963. After its reorganization, it was re-launched as an extended program that October. The extended program had as its basis the idea that there were three conditions that had to be met for fertility to be lowered. Individuals had to agree that a small family was of immediate benefit to their community; individuals should believe that the small family was personally valuable, and know how it could be achieved through contraception; and finally, individuals should have access to those contraceptive methods.¹¹² Family planning had been moved out of the clinic and was to be put into the hands of the village, and the individual. As Freymann put it, ‘it is now officially emphasized that adoption of family planning nominally requires no clinic visit, and that the clinic should be viewed only as a resource for referral of special problems’.¹¹³

The emphasis on the individual that formed the core of the extension approach had been noted by both Nehru and VKRV Rao, with differing degrees of acceptance, at the 1959 International Planned Parenthood Conference. Nehru had drawn attention to the increasing emphasis being placed on the individual and on the ‘individual approach’. VKRV Rao had also raised this in his speech to the delegates, and both Rao and Nehru had argued that the individual was the proper focus of family planning. Rao argued that this was particularly the

¹⁰⁸ Ibid, p.47

¹⁰⁹ Ibid

¹¹⁰ Ibid, p.48

¹¹¹ Ibid

¹¹² B.L Raina, ‘India’ in Bernard Berelson et al (eds.) *Family Planning and Population Programs: A Review of World Developments* (Chicago, 1966), pp.115-116

¹¹³ Moya Freymann, ‘Population control in India’, p.59

case when motivation was considered; it was there that the significance of the individual became clear. Motivation, he maintained, 'cannot be thought of in collective terms'.¹¹⁴ This line of thinking formed the basis of the extension approach being implemented in 1963. The focus was intended to grow family planning acceptance from the ground up, and a high level of emphasis was placed on making use of local channels to educate, supply and support people in planning their families. These efforts were being bolstered by reorganization at the National level – with a Cabinet Committee, Central Family Planning Council, and Commission of Family Planning forming the apex, supported by three expert committees; the Demographic Advisory Committee; the Communications and Action Research Advisory Committee, and the Advisory Committee on Bio-Medical Aspects of Family Planning.¹¹⁵

Freymann and Raina built on their work at the Gandhigram Institute, and after the implementation of the Extension Approach they attempted to use this research to improve the effectiveness of the extension programme. A project to test the utility of community leaders to promote family planning had been underway since 1962. It had begun in six villages, to be expanded to fifty-nine by 1965. The Gandhigram Institute was testing the idea proposed by Raina in the 1962-1963 Report – that village leaders could be selected and trained to educate groups about family planning, and to distribute contraceptives.¹¹⁶ The program was tested by first meeting and planning with members of the Panchayat union and the Community Development Block staff. The aim was to set goals and priorities, and to 'agree on plans', including both 'financial and personal resources'.¹¹⁷ The village to be selected for the Village Leader to work in was decided collectively, though villages with the highest chances of success were chosen first, on the basis of their receptiveness to other development programs. Once the program was sanctioned by the villages and by the Panchayat members, the family planning Village Leaders would be selected from within the villages. People were questioned about who they would trust, and questioned about whether they would themselves like to be a leader. Selected leaders were given training at a one-day camp. Divided into two groups, they discussed questions such as 'what family size is best?' and 'what information do you need to control family size?', while the other group was told about the official program.¹¹⁸ Leaders were encouraged to develop their own plans and approaches to their tasks. Field staff remained

¹¹⁴ V.K.R.V Rao 'Inaugural Speech', *Sixth International Conference on Planned Parenthood*, p.6; Jawaharlal Nehru, 'Inaugural Speech', *Sixth International Conference on Planned Parenthood*, pp.7-8

¹¹⁵ B.L Raina, 'India' in Bernard Berelson et al (eds.) *Family Planning and Population Programs*, p.116

¹¹⁶ 'India: The Use of Family Community Leaders to Promote Family Planning' *Studies in Family Planning* 1:13 (1966), p.6

¹¹⁷ Ibid

¹¹⁸ Ibid, p.7

available to provide help if it was needed, and the Gandhigram Institute organized reunion events, to give them recognition and an outlet to meet and exchange ideas.¹¹⁹

The scheme undertook a policy of 'no interference' – they did not take on extra responsibilities, impose any ideas, or do anything in the villages without first consulting community leaders. The results of the program, which covered fifty-nine villages and 55,000 people by 1965, were highly positive. There appeared to be evidence of a declining birth rate, and good evidence on contraceptive availability and use. Foam tablets had (again) been shown to be unpopular, with condoms the preferred option.¹²⁰ Condom consumption appeared to increase the year following the implementation of the program. The results also indicated that villages often wanted other, more pressing needs met before they turned to family planning – but that once these needs were met, they would accept contraception.¹²¹ Their study had also noted a significant rise in the number of vasectomies performed, and that a number of the operations had occurred before the 'intensive programme' had begun.¹²²

THE SOLUTION TO THE MOTIVATION PROBLEM

The ability to harness the power of the group, to establish and spread the small family norm and to use education and mass communication to 'solve' the motivation problem had become entrenched by the mid-1960s. The Minister of Health Sushila Nayar, addressing the Fifth All-India Family Planning Conference, noted that the small family norm had to be brought home to everyone.¹²³ Also raised at the Conference were questions about the role of Governments and voluntary and non-state organizations in administering the family planning program put forward under the Third Plan. The need for an 'all-out, concentrated and massive drive...in order to bring into every Indian home the message of the small family' was at the cusp of being implemented, Avabai Wadia argued. The groundwork had been laid, and all that remained was for action to be taken to turn family planning into a 'people's movement'.¹²⁴ The role of the educational program was to help those who had a latent desire to use family planning take the necessary steps towards doing so. The 'why' of family planning, once people had received a basic level of education, could be conveyed through the mass media campaign to full effect.¹²⁵ Under the extension approach, the 'why' of family planning was directly related to both

¹¹⁹ Ibid

¹²⁰ Ibid

¹²¹ Ibid

¹²² Ibid

¹²³ Family Planning Association of India, *Fifth All India Conference on Family Planning: Report of the Proceedings* (Patna, 1964), p.3

¹²⁴ Ibid, p.13

¹²⁵ B.S Seghal, 'Steps in Starting a Family Planning Education Program', *Fifth All India Conference on Family Planning: Report of the Proceedings*, p.95

individual and national needs. From the national program viewpoint, the growth of population had researched worrying levels – population growth needed to be quickly reduced, hence the adoption of a target for reducing birth rates. However, the extension approach also opened up the ‘why’ of family planning to the individual, who was encouraged through schemes like the Village Leader approach to make their own links between family planning and their personal circumstances – with the help of knowledge, education and contraceptives.

Between 1964 and 1967 the family planning program underwent another period of ‘intensive program organization’. The UN Advisory Mission to India in 1965 had noted that the extension approach, which required a huge injection of staff (and associated education, training, transport, new facilities, and so on), would make the plan slow to be implemented and slow to generate results.¹²⁶ ‘Unless an attack on fertility is made at once through family planning’, the Report argued, ‘the rate of growth will not be reduced’ and the Government would find it impossible to ‘create demographic conditions more favourable for development’.¹²⁷ By 1965 there was a growing sense of disenchantment about the population program. Both Indian and American officials, it was reported felt that the program had gone wrong. There was a lack of ‘long term vision’, Reuben Hill (a Ford consultant) reported, with no concrete sense of what things would look like five or ten years down the line.¹²⁸ Still, Hill noted, it was undeniable that by 1965 ‘population was everywhere’ – posters about family planning were in medical centres, editorials and advertisements were spreading the family planning message, and there were debates in the State and Central legislatures as well as a general willingness to discuss population issues, both inside and outside of the Government.¹²⁹ The seriousness with which the Government was taking the program, Hill noted, was such that even the Sino-Indian war and the Indo-Pakistani war had not delayed or diminished the budget allowance to family planning.

The problem – and the reason for distress among the population experts and planners – was the failure of the Government to have appointed the needed personnel and the now familiar problem of under-spending with regards to the budget. The training programs and education programs, especially those linked to ‘research and demonstration programs of action research’ were notable areas of success – the programs at Lucknow and Gandhigram which attempted to manipulate social ideas and practices to spread family planning had been yielding good results. The Gandhigram experiments had added the aspect of re-training for health

¹²⁶ United Nations Advisory Mission, *Report on the Family Planning Programme in India* (1966), pp.6-7

¹²⁷ Ibid, p.2

¹²⁸ Reuben Hill, ‘Comments and Programs in India’ (1965), Ford Foundation Unpublished Reports, B18673/F3684, [RAC], p.1

¹²⁹ Ibid

inspectors and family planning educators so they would work more effectively with the villager leaders chosen in the scheme. They had also begun to incorporate local depot holders, who could act as contraceptive suppliers.¹³⁰ Significantly, Hill notes, 'in these two field programs, there is none of the disenchantment found in the central planning institutes or among the consultants....the mood is high and the staff is certain of eventual success'.¹³¹ The wider problem, argued Hill, was that outside these 'show pieces', 'professional manpower is distributed too thinly...trained personnel are too few to bring an impact to bear at the village level'.¹³² Likewise, much of the research, particularly the KAP research being conducted, was 'useless repetition of studies on family size attitudes'. Others, like S.N Agarwala, who were investigating the links between nuptiality and fertility needed to be further supported so their research could be use 'programmatically'. Adding to the problem was the lack of an adequate means to evaluate progress and success, with no significant work being done on 'use-behaviour', and out-of-date evaluation technology that had not appreciably developed since the mid-1950s.¹³³

The Third Plan had emphasized the need to combat population growth to bring it in line with economic and social development goals. Family planners and policy makers, working from the base of knowledge established in the 1950s, believed that there were limited barriers to acceptance, and that people were willing to accept contraception, but the vast majority first need to be educated about family planning and the methods of fertility control available. Following this, it was argued, people would be 'motivated', and would choose to limit family size. This approach was prioritized in the extension approach which sought to massively expand the existing program by taking it out of the clinics and into the villages. While the early research was widely considered to be highly successful, the program as a whole was not. As early as 1965 the entire extension approach was being questioned, and by 1966 extension, despite its early successes, was being passed over in favour of contraception. The build up to the Third Plan and the Extension Approach also highlighted the tensions that were beginning to foment around the question of research and its relationship to policymaking, and the role of the state and of NGOs and voluntary organizations in implementing Government policy.

¹³⁰ Ibid, p.2

¹³¹ Ibid

¹³² Ibid, pp.4-5

¹³³ Ibid, p.5

CHAPTER FIVE: FROM MASS COMMUNICATION TO MASS CAMPS

In 1967, when he was made Minister of Health and Family Planning, Chandrasekhar embarked on massively extended program of family planning, promoting mass communications and mass education campaigns in an attempt not only to make people change their reproductive behaviours, but also to change their minds about family size. To provide a way to measure – and encourage – progress, he instituted the time-bound and target-oriented approach to the programme that, alongside the aggressive promotion and incentivisation of sterilization and IUCD acceptance, is often considered to foreshadow the policies undertaken in the Emergency. This chapter argues that while the consolidation of incentives, the ‘small family norm’, and time-bound target oriented policies in the Fourth Plan is significant, understanding these changes requires contextualizing family planning policy in the demographic and population thought of the late-1960s and early 1970s.

By 1968 India had embarked on what was considered ‘a frontal attack on fertility...one of the most fantastic feats of social engineering on record, virtually without precedent’.¹ The late 1960s and early 1970s were the height of the technocratic approach to family planning and demography.² Infused by the belief that technology – particularly contraception but also communications technology like radio and television – could revolutionize the family planning effort, the Fourth Plan’s rhetoric relied on the significance and potential impact of new approaches to solve the population problem once and for all. Many of the policies, like mass communication, drew on ideas that were emerging out of the ‘sociological turn’ in demography that had begun to take hold during the early 1960s. Others, like the Nirodh Marketing Campaign, which was officially started in 1967-68, made use of innovative ideas combining the Government’s family planning programme with private-sector commercial supply chains, drawing on of research and ideas originating in the 1960s concerned with marketing, social change, and demography.

The reliance on technology and on ways to measure performance through time-bound target setting has dominated the recent historiography of this period. Seen as the ‘prologue to the Emergency’, the emphasis on technological solutions – particularly sterilization, the imposition of targets, and the introduction of incentives – is understood as having laid the

¹ ‘It’s God’s Will, Why Interfere? Birth Control in India’, *New York Times Magazine*, January 14th, 1968

² Corinna Unger ‘Family Planning – A Rational Choice?’ in Heinrich Hartmann and Corinna Unger, *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*

foundations for the approaches to population that were undertaken between 1975-1977.³ By contrast, older accounts of the period have tended to largely pass it over, attributing the late 1960s and early 1970s little significance as anything other than an extension of policies that had been begun in the Third Plan period.⁴

However, the period between 1967-1973 needs to be reconsidered, not in the light of the Emergency, but for what it illustrates about the operation of family planning during the high point of technocratic arguments in demography. As Corinna Unger has recently shown, looking to the way that family planners tried to change social norms, drawing on the developments in sociology, psychology and rational choice theory, this period can be understood as the culmination of a line of sociological and social-scientific thinking that dominated demography and family planning during the 1960s.⁵ Following her argument, this chapter explores the rhetoric and the implementation of the family planning policies pursued during the Fourth Plan, arguing that the technocratic and normative idealism of family planners was often frustrated by the realities of implementing their policies. This was recognized in one of the most successful policies pursued during this period – the mass communication campaign – which relied on “old” and “traditional” media and contraceptives for much of its success. Looking to the contradictions between the rhetoric surrounding technological ‘solutions’ and their implementation, this chapter will illustrate the growing fault lines that were emerging during the late 1960s and early 1970s among demographers, family planners and administrators, who were struggling to understand how to make family planning work, and beginning to question the base assumptions of population policy, as the family planning program was itself being increasingly questioned – both by those who were its supposed targets, as well as by the professionals and experts trying to implement it.

PLANNING FOR THE MODERN FAMILY

When Sripati Chandrasekhar was first elected to the Rajya Sabha in 1964 on the Congress ticket representing Madras, many in the population control and family planning movement saw this as a step forward for their cause – ‘at last a family planner has been given a place in our Parliament’ wrote Sushila Gore, ‘I am so proud that your contribution as a speaker will now be heard by people who ought to be educated in the urgent need of this programme in our

³ See for example Matthew Connelly, ‘Population Control in India: Prologue to the Emergency Period’; Mohan Rao, *From Population Control to Reproductive Health*

⁴ B.L Raina’s book *Population Policy* (Delhi, 1988) is a good example of this.

⁵ Corinna Unger, ‘Family Planning – A Rational Choice?’ in Heinrich Hartmann and Corinna Unger, *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*

country'.⁶ C.P Blacker also sent his congratulations, adding that he hoped the Parliamentary platform would 'widen your influence'.⁷ 'Democracy', wrote another well-wisher, 'will be demographic'.⁸

By the time Chandrasekhar was made Minister of Health and Family Planning the mood towards economic development had shifted. Nearly sixteen years of economic planning had wrung a great transformation in India – 'hope has given way to despair; enthusiasm has been turned into frustration and cynicism'.⁹ The current situation was one of 'unmitigated gloom and unrelieved distress'.¹⁰ The "rot", it was argued, had set in with the Second Plan; a conclusion that the UN, the World Bank, and Ford Foundation appeared to broadly agree with. Noting consistent 'failures of implementation', the UN Technical Advisory Mission had advised the Government of India in 1965 to reorganize the family planning program and to prioritize the distribution of the IUD. The Government's compliance with these requests – rolling out the IUD and re-organizing the administrative structure of the program in 1966 - had sent a clear message that the program was backed by strong political will and would not be hampered by further implementation failures.¹¹ American technical assistance, particularly from the Ford Foundation, had become entrenched in the 'routine administration' of the program, facilitated by the creation of semi-Governmental agencies like the Central Family Planning Institute and the National Institute of Health Administration Education, and through their involvement in programs of mass communication which they had been instrumental in starting.

While the Second Plan and Third Plans had expanded the clinics, increased the scale of education, extended contraceptive availability, and had begun trials with the IUD and sterilization, the problem of actually reaching people in rural areas, rather than being 'impressive on paper', remained an enormous and problematic task. The UN and World Bank had both recommended an increase in sterilizations and IUD insertions, the Government had changed its policy and began offering incentives for sterilization in 1966, and had made it possible for the states to work more closely with voluntary organizations for family planning, allowing them to grant up to Rs.50,000.¹² Conventional contraceptives were to be distributed

⁶ Sushila Gore to Sripati Chandrasekhar, 4th June 1964, Career Files, Rajya Sabha, Parliament, B53/F25 [UofT]

⁷ C.P Blacker to Sripati Chandrasekhar, 8th July 1964, Career Files, Rajya Sabha, Parliament, B53/F25 [UofT]

⁸ C.S Mehadevan to Sripati Chandrasekhar, 29th April 1964, Career Files, Rajya Sabha, Parliament, B53/F25 [UofT]

⁹ B.M Bhatia, *India's Economic Crisis and Fourth Five Year Plan* (Delhi, 1967), p.i

¹⁰ Ibid

¹¹ Mohan Rao, *From Population Control to Reproductive Health*, p.36

¹² J.P Gupta, N.K Sinha, Amita Bardhan, (eds.), *Evolution of Family Welfare Programme in India*, Vol. 1, p.31-32

free of cost. Significantly, target setting – which had been trialled in Madras City in the 1950s – was put into action: the program was to be made target-oriented and time bound as a means to gauge program performance.

Chandrasekar's appointment to Minister of Health and Family Planning in 1967 was an extension of the desire to press ahead with family planning and an indication of the seriousness with which it was being treated. Indira Gandhi was herself a long-time supporter of family planning, and as Minister of Information she had 'pressed a plan to distributed hundreds of thousands of radios across India to disseminate family planning information'. Along with Dhanvanthi Rama Rau, she had been a significant source of pressure on Sushila Nayar to implement incentive payments for IUD acceptance.¹³ Chandrasekhar's appointment was a continuation of these ideals. Widely known by 1967 for being an enthusiastic – sometimes overenthusiastic – supporter of population control, he had the 'real enthusiasm' for family planning that many believed Nayar had lacked.¹⁴ During his tenure as Minister Chandrasekhar implemented a "crash program", begun in 1967, to try and dramatically low the birth rate from 41 per 1000 to 25 or 20 per 1000 "as soon as possible".¹⁵ He launched the "cafeteria approach", expanding the existing IUD and sterilization programs, and making available all "scientific" contraceptive methods, including oral contraceptive pills.

The methods deployed up to 1967 had failed, he argued, because 'despite the debate and discussion, the money and effort, the foreign aid and advice', none of the attempted methods other than sterilization had achieved a decline in birth rate. The four main problems that needed to be faced were motivation, methods, money and men.¹⁶ He was very clear, however, that the ultimate goal was social transformation: 'I believe the family planning programme has wider implications than the mere demographic role of reducing the birth-rate', he argued at a meeting of the Central Family Planning Council. 'This programme will generate social change and bring about some transformation in the evolution of values, norms, attitudes and beliefs of our people...salvation from poverty and unfulfilled ambitions lies in small families'.¹⁷

¹³ Matthew Connelly, "Population Control in India: Prologue to the Emergency Period", p.653

¹⁴ Rosanna Ledbetter, 'Thirty Years of Family Planning in India', p.742; 'Foe of Overpopulation: Sripati Chandrasekhar', *New York Times*, 31st May 1967

¹⁵ Rosanna Ledbetter, 'Thirty Years of Family Planning in India', p.743

¹⁶ Chandrasekhar, 'India's Population: Fact, Problem and Policy' in *Asia's Population Problems* (London, 1967), p.96

¹⁷ 4th Meeting of the Central Family Planning Council, October 6-7, 1967 S3/SSA/B25/F55 [UofT], p.5

‘MASTERS OF FATE’: SOCIAL SCIENCE AND DEMOGRAPHY

The Behavioural Sciences and Family Planning Conference was held the same year Chandrasekhar was made Minister. The Conference proceedings, which include debates and papers by leading social scientists in the population field, provide an overview of how population thought had expanded since the 1950s and early 1960s. Many of those assembled were interested in population for a variety of reasons, but all shared Ronald Freedman's view that 'the field is too important to be left to the demographers'.¹⁸ Thrown open to a wide variety of disciplines, family planning and population was being investigated and explored from a number of angles. Many had already begun to be incorporated into India's family planning program - communications had been included in family planning plans since 1963 - but other approaches were promising new solutions to the population problem. While many of the "typical" problems, such as data validity and the problem of interpreting interview responses were raised by "old hands" such as Philip Hauser, new approaches to understanding motivation, social change, decision making, and choice in the family and society that were being explored by psychologists, sociologists and in family studies, presented an optimistic vision of the potential success of a voluntary program.¹⁹ Many saw family planning as a 'strategic wedge' that could be used to 'gain greater autonomy', allowing people to 'become masters of their own fate'.²⁰

Motivation, demography and the deployment of social psychology had been factors influencing demographic thought and family planning programs since the late 1950s.²¹ By the mid-1960s, the study of demography had itself changed. Traditionally demography had been concerned with "fate" – analysing demographic factors like birth, death, marriage and mortality in terms of trends and rates, with little interest or concern for the individual. In this model, man was portrayed as passive and reactive, in the grip of 'physical, biological, and social forces'.²² The new demographers, however, had come to realize the significance of the individual – a significance long recognized by social psychologists, who took the individual as the base from which to understand social systems. For the social psychologist man was not a passive traveller through life, he was a 'modifiable organism loosely connected to society'.²³ The change in demography towards the individual that was emphasised by social psychologists had emerged

¹⁸ Margaret Snyder, 'Behavioral Sciences and Family Planning' *Science* 158:3801, p.677

¹⁹ Ibid

²⁰ Ibid

²¹ Corinna Unger 'Family Planning – A Rational Choice? in Heinrich Hartmann and Corinna Unger, *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*

²² Kurt Beck, 'New Frontiers in Demography and Social Psychology' *Demography*, 4:1 (1967), p.91

²³ Ibid

with technological advancements that had given man greater control over his environment, including over forces previously relegated to “fate” by traditional demographers. Now that individuals could exert more control over demographic variables, using medicine to overcome disease, controlling fertility through contraception, and having greater choice over marriage, it had become possible to measure the factors that influenced these choices – to ‘determine the amount of motivation, of information, and of absence of inner compulsion’ that shaped how people made decisions that had ‘demographic consequences’.²⁴ Individual decisions, in the context of the larger social framework, could now be seen to “matter”, demographically speaking.

This line of thinking had been applied to family planning programs, where its potential was considered to be immense. The ethical problems usually faced by researchers studying and attempting to manipulate social change were, in the context of family planning, “minimal” because ‘in many relevant places there is consensus in the population, in the political authority and among the scientific workers. Significant parts of the population say they want to limit family growth, the political leaders say they should, and the investigators share these values’.²⁵ The problem was less one of if it should be attempted, than of how to go about it.

Developing countries afforded researchers a particularly good place to study the modification of behaviours, it was argued, because whole political and social units – the villages, districts, or neighbourhoods – could be targeted. The basic question was ‘what are the necessary and sufficient conditions for a sharp reduction in fertility?’.²⁶ From the behaviouralist standpoint, this meant looking at the totality of forces that affected fertility – not only at contraceptive use, but also at social factors such as age of marriage, and attitudes and norms about family size.²⁷ Freedman argued that attitudes and norms were the significant factor. While surveys had measured ideal family size, interpreting the results meant looking beyond the ‘ideal’. In India, some considered the results of such surveys worthless, he noted, because were ‘frequently not associated with indigenous family planning or the acceptance of family planning when offered’.²⁸ Those who responded positively – in that they said they wanted smaller families – were, he maintained, just telling the investigators what they wanted to hear. However, Freedman took this to be reflective of an ‘important social fact’ – people were aware

²⁴ Ibid, p.94

²⁵ Ronald Freedman, ‘Application of Behavioral Sciences to Family Planning Programs’ *Studies in Family Planning*, 1:3 (1967), p.5

²⁶ Ibid, pp.5-8

²⁷ Ibid, pp.7-8

²⁸ Ibid, p.8

of 'modern small family values', and knew they were what the 'modern' and urban investigator wanted to hear.²⁹

Many, including Chandrasekhar, saw technology as a crucial part of these developments. Not only did social scientists need to be more engaged in the development of particular technologies, some argued, they also needed to pay more attention to how innovation spread throughout society.³⁰ The final consideration was administrative – the need to solve the problems created by excessive bureaucratization, over-specialization and the ethnocentrism of (frequently American) technical advisors in developing countries.³¹ That social values could be understood and manipulated was a line of thinking that had emerged in the post-war period with the rise of social psychology and behaviouralism.³² The belief that people's behaviour could be controlled 'in a democratic way' formed the basis for research on group behaviour conducted in the post-war period. The importance of community development and 'democratic patterns of communication' underpinned arguments about how to 'provide the basis for a politically stable path to development' – a path that the Ford Foundation had begun to tread in the 1950s in its early communications projects in India to help, among other things, 'promote participatory forms of individual and group behaviour'.³³

One of the major aims of the Fourth Plan was to widen participation and create a sense of national ownership and participation in the family planning project. 'Family planning must not merely be a Government programme', Chandrasekhar argued. 'Eventually, within a decade or two from now, it must become a people's programme'.³⁴ However, telling couples how many children they should have formed one of the core principles of the Plan. While a 'democratic, free and responsible society a couple must have the freedom and facilities to have the number of children they want', this was constrained by the resources of the family to 'bring up responsible individuals' who would live a 'civilized and cultured life'.³⁵ Constraints over family size were also necessary from a national perspective – a higher level of living, made possible by increased development, would result in greater per capita consumption, thus benefitting the individual.³⁶ This implication was, of course, that the fewer individuals there were, the more

²⁹ Ibid

³⁰ Margaret Snyder, 'Behavioral Sciences and Family Planning', pp.679-680

³¹ Ibid, p.680

³² Corinna Unger 'Family Planning – A Rational Choice?' in Heinrich Hartmann and Corinna Unger, *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*, p.65

³³ Ibid

³⁴ Sripati Chandrasekhar, 'The Programme, now Government's, must become people's', *Yojana*, September 15, 1968, p.3

³⁵ Ibid

³⁶ Ibid, p.2-3

everyone would have. A key part of the “people’s programme” was the mass motivation scheme. One of the central questions of the scheme was how to motivate people – individuals and couples – to adopt the small family: mother, father and two or three children. The key getting people to have small families was believed to be motivation, a phenomenon little understood and which was made more complicated, it was argued, by the intensely personal nature of family planning.

Education had been part of the overall program of family planning in India since the First Plan, though education had tended to focus on the availability and use of contraceptive and non-contraceptive methods of family planning.³⁷ While efforts to link the family planning program with the community development program had extended the reach of family planning beyond the clinic and drew a closer connection between family planning and development, the ‘education aspect remained primarily concentrated on contraceptive use’.³⁸ It was not until the Third Plan that the attempts to directly link family planning to ideas and values of family size were made as part of the Government’s plans.³⁹

THE SMALL FAMILY NORM

Population experts and demographers had discussed the “small family system” and the small family ideal throughout the inter-war period, though Frank Notestein’s account of the small family ideal was one of the most significant.⁴⁰ Notestein argued that the small family ‘typically arose in the urban industrial society’. Urban life, he maintain, had “stripped away” the socio-cultural factors that encouraged people to have large families. The modernization of society through rapid technological development meant that education and the ‘rational point of view’ were ever more important.⁴¹ Overall development also acted to make children more expensive, which combined with lowering infant mortality meant that there were fewer ‘inducements to births’. Women, freed from their traditional social roles, also desired fewer children. This transformation, he argued, was the basis for the small family ideal.⁴² Notestein’s account of the small family idea was hugely influential in demographic thinking about population change and ideas about family size. However, the need for reproductive change to occur before, if not alongside, economic change form one of the major problems faced by countries who wanted the small family norm to become a pattern of behaviour in society. It was the shift towards

³⁷ P.N Sinha, *Population Education and Family Planning* (Delhi, 2000), p.40

³⁸ Ibid p.45

³⁹ B.L Raina, *Population Policy*, p.11

⁴⁰ Dudley Kirk gives an overview of discussion of the “small family ideal” in the inter-war period in Dudley Kirk, ‘Demographic Transition Theory’ *Population Studies* 50:3 (1996), pp.361-387

⁴¹ Frank Notestein, ‘Economic Problems of Population Change’, quoted in Dudley Kirk, ‘Demographic Transition Theory’, p.364

⁴² Ibid, p.364

sociological methods and model in demography and family planning that appeared to offer a solution – by arguing that people’s ideas about small family size were not economically determined, but malleable and capable of being changed. Changing the realization of the small family norm into action, and facilitating control over ‘fate’ was what Chandrasekhar hoped to achieve. To ‘motivate people’, he explained, he wanted to make them aware that their personal desires for a large family was incompatible with the goal of higher standards of living, and that control over fertility was possible through contraception. The key, he stressed, was to approach “total man” in his “total environment”, addressing concerns through health, medical, and social welfare services, and by convincing people that not only was change in their personal interest, it was also ‘accepted and approved by their peers and is generally socially acceptable’.⁴³ To do this, it would necessary to take this message to the 90 million eligible couples – couples in their “reproductive years” – and motivate them to change their ideas about family size.

The guidelines Chandrasekhar laid out for motivating people to adopt the small family norm were: to highlight ‘dissatisfaction with poverty and low levels of consumption’ and the incompatibility of the large family with a desire for a high standard of living ‘in the present economic context’.⁴⁴ Creating a ‘felt need’ for family planning, providing family planning services to people’s doorsteps, and approaching people through media they respected, were familiar with, and that they trusted were key. ‘A change in attitudes can be brought about effectively only if the people are convinced such a change is in their personal interest, accepted and approved by their peers and is generally socially acceptable’, he noted.⁴⁵ but creating the program to make the change happen was a massive undertaking.

Chandrasekhar understood the small family norm as a social value, but also as a fixed point that could be moved towards. The developments that had been made in family planning with regards to “births prevented” through sterilization and IUCD insertions were promising, he noted, as were results from pilot projects showing declining birth rates.⁴⁶ The question remained, however, ‘as to how and with what intensity we can implement the program so that small families become not only an individual aspiration but also a social norm’.⁴⁷ Creating a “climate” for small families was key, he argued, and would involve all of the efforts of the Government and voluntary organizations. If all of the efforts of the Government could be

⁴³ Sripati Chandrasekhar, “The Programme, now Government’s, must become people’s”, p.4

⁴⁴ These points were important, he argued, because people who were happy were unlikely to be persuaded to change their ideas or their behaviors. Ibid

⁴⁵ Ibid

⁴⁶ The pilot projects he cited were: Gandhigram, Bombay, the Indian Statistical Institute’s Calcutta project, the Singur project and the Delhi Mehrauli Family Planning Project. Sripati Chandrasekhar, “Towards a small family as a social norm”, S3/SSA/B32/F3 [UofT]

⁴⁷ Ibid

brought to bear, he argued, then it was to be hoped that ‘apart from the availability of various methods of family planning, it will be the social climate which will be a determining factor in helping people to have small families’.⁴⁸

The efforts of the Government and voluntary organizations in creating the “climate” were to be directed primarily towards halving the birth rate. To achieve this, the Fourth Plan melded aspects from the Third Plan with Chandrasekhar’s earlier experience on the Madras State Family Planning Board – the plan set targets and operational goals which, for the first time, were to be time-bound. The target was a birth-rate of 24 per 1000, and the operational goal was to give 90% of the married population of India – 90 million couples – the “facilities to adopt family planning” by ‘promoting group acceptance of the concept of the small family norm’, through ‘importing personal knowledge about family planning methods to individuals’, and by ‘making supplies readily available’.⁴⁹

The small family norm was to be promoted in two primary ways, through a massive mass communication campaign to convince and motivate people to adopt a small family, and to provide the information people needed to be able to do so. The program drew heavily on the research and expertise of the Ford Foundation and other foreign consultants, though the role of the Indian expertise frequently superseded that of the “foreign experts” – particularly in the design of the iconic symbols and messages of the family planning campaign. The second prong in the approach was to offer incentives and disincentives for the adoption of the “small family norm” by rewarding or punishing contraceptive users and those who had large families.

MASS COMMUNICATION

The problem of implementing family planning sat at the crossroads of motivation, technology and administration. The difficulties in getting people to use contraceptives had been apparent since the 1960s. Beyond the technological problems associated with contraceptive use, there were also administrative problems and communication problems – what was the best way to persuade people use contraceptives, and to adopt the small family norm? What was the best method to get the contraceptives to people so they could easily access them, in the absence of a highly developed health-infrastructure? The purpose of mass the communication campaign was, at its centre, to try and solve this problem by manipulating people’s desire for large families into a desire for small ones. Having a small family was cast as being part of the creation of a new, modern India – the ‘free individuals’ who would produce the ‘responsible’, ‘civilized’ and ‘cultured’ citizens of the future would do so in families of no more than three children. To achieve this meant finding a way to communicate the small family norm and they ways to

⁴⁸ Ibid

⁴⁹ Ministry of Health and Family Planning, *Family Planning Programme in India* S5/SSE/B46/F36 [UofT], p.2

achieve it to a population primarily located in rural areas and who were largely illiterate. This meant re-examining traditional media as well as finding new ways to communication with people.⁵⁰ The program combined 'standard' media – the press, radio, cinema and printed materials – with 'traditional' media – folk dance, songs and plays.⁵¹

The two principle architects of the program, Frank Wilder and D.K Tyagi, argued that the truly revolutionary aspect lay in the message and in the symbol. In crafting the message for the campaign the program designers ignored specialist professional advice to have a "phased campaign" with a changing message. They decided instead to have a single, simple message that would be a 'direct exhortation to have a specific number of children', and to present this message in a uniform way across all forms of media. The idea was that the message should be understandable, and that the campaign should stay its course until 'everyone knows, through this message, that family planning is legitimate and what it means'.⁵² This was significant, they argued, because while "the small family is a happy family" concept made sense to family planners and administrators, it did not align with the aims or experience of many people, particularly in rural areas. Clarity and a call to action were more important than abstract links between family size and familial happiness, thus the message was 'two or three children....stop', accompanied by the depiction of the happy family, the "four faces", a song by famous singer, and the symbol of the red equilateral triangle, with its tip faced downwards.⁵³

The message and symbols of the program that formed the basis of the campaign were based on calculations about the family size that was needed to meet the targeted reductions in birth rate. If all families had no more than three children (and if many had fewer), then the target of 25 births per 1000 by 1975-1980 was just barely in reach, though coming close to attaining it would involve the unlikely scenario of all familiars immediately adopting and practicing the small family norm.⁵⁴ It was acknowledged that the adoption of the 'two or three' children slogan was a 'bold and risky step', given the high importance placed on sons in most families, the social desirability of large families, and the 'resistance from "high officialdom"' who wanted to focus more on high parity couples than low parity or newly married couples who were also targeted by the communications program.⁵⁵ 'Only those few Department officials who

⁵⁰ Frank Wilder, D.K Tyagi, 'India's New Departures in Mass Motivation for Fertility Control', *Demography* 5:2 (1968), p.775

⁵¹ Ibid

⁵² Ibid

⁵³ Govind Narain, 'India: The Family Planning Programme Since 1965' *Studies in Family Planning*, 1: 35 (1968), p.9

⁵⁴ Ronald G. Ridker, 'Desired Family Size and the Efficacy of Current Family Planning Programmes' *Population Studies*, 23:2 (1969), p.283

⁵⁵ Frank Wilder, D.K Tyagi, 'India's New Departures in Mass Motivation', p.776

forced through the 2-or-3 slogan knew that the fourth child spells death to India's goal' argued Wilder and Tyagi.

While the campaign faced some resistance within the Government, it had long had the support of the Ford Foundation, having been one of Ford's first interventions into family planning in India. \$19 million had been allocated to mass communications in the Fourth Plan. Every month the radio broadcast 600 family planning programs. Newsreels were produced on a weekly basis, and between eight to ten films were released on a yearly basis.⁵⁶ The 'outdoors' media – billboards, posters, rickshaws, handcarts and 'most important', the exterior walls of buildings – were all exploited to spread the message.⁵⁷ The sides of trains – following a dispute with the 'traditional conservatism' of the Railways – were also employed, with five by eight foot signs bolted to the sides of coal carriages, travelling widely and being seen by thousands at stations.⁵⁸ Printing the symbols and slogans onto matchboxes and slogans took the message into people's homes.⁵⁹ Wilder and Tyagi also used more unconventional mediums. One of Tyagi's favoured approaches was the use of the family planning elephant. Beautiful Flower – dubbed "Lal Tikon" for the program – and her keeper had been discovered by Tyagi, who had together with a consortium of family planning supporters employed "Lal Tikon" to tour the villages as part the family planning campaign. Wearing banners with the Red Triangle symbol, the elephant would tour from place to place, doling out condoms with her trunk.⁶⁰ Written on her side in bright paint was the slogan "My name is Lal Tikon. My job is to spread happiness". The outcome of her visits was reportedly positive – one reporter found that in one village she visited, five men had volunteered to be sterilized.⁶¹ The proponents of the mass communications campaign argued that its success would come from the ability of the message to be quickly and easily replicated. The high 'awareness diffusion' of the message meant it spread rapidly, its simplicity overcame the 'hurdle of illiteracy', and repetition provided 'the illusion of legitimacy'. Furthermore, the 'outdoors-ness' of much of the program would promote public discussion.⁶² The adoption of the symbol and slogans, Wilder argued, was a 'radical step' that would help to strengthen the program by communicating awareness, and would give it an

⁵⁶ Manon Parry, *Broadcasting Birth Control: Mass Media and Family Planning* (New Brunswick, 2013), p.84

⁵⁷ Frank Wilder, D.K Tyagi, 'India's New Departures in Mass Motivation', p.777

⁵⁸ Ibid

⁵⁹ A 5-paise family-planning stamp was made available at 100,000 post offices. Govind Narain, 'India: The Family Planning Programme Since 1965', p.9

⁶⁰ Oscar Harkavy, *Curbing Population Growth*, p.138; William J. Coughlin, 'India's Drive to Stem Births Lags Despite Major Effort', *The Washington Post*, October 23rd, 1969

⁶¹ Myron Belkind, 'An Elephant for Birth Control' *The Washington Post*, January 26th, 1969

⁶² Frank Wilder, 'Telling the Millions' *Yojana*, September 15, 1968, p.20

'image of authority and permanence'.⁶³ The media campaign was bolstered by the work of 75,000 extension educators who were tasked with 'directly motivating' people.

One of the technologies heralded as having the greatest potential for mass motivation was the radio. Plans had been made for 20,000 transistor radios to be given to field workers. The All India Radio was transmitting family planning on 22 of its 36 stations, discussing family planning and women's programs, as well as featuring 'frank and incisive discussions among leaders with varying shades of opinion'.⁶⁴ The point, Wilder made clear, was that family planners and program administrators thought in terms of the goals and targets they needed to meet, and kinds of program organization and administration that were needed to be effective. This, however, obscured the fact that for the targets of the program – the 'customers' and 'eligible mothers and fathers' – all that matters was the information being given to them, and the motivation it instilled in them to practice family planning. 'No parent adopts a method without at least knowing what he or she is doing (if not also why he is going it and how the method works), Wilder argued. It was clear that, for Wilder and the Ford Foundation at least, mass communications offered the last great hope for a voluntary solution to the problem - 'There must be a flow of convincing positive information to the eligible public, if there is to be willing adoption of contraception by them. The only alternative to such a flow of information is the enforced imposition of some impossible contraceptive method on unwilling millions of couples arbitrarily termed 'eligible'.⁶⁵

THE NIRODH MARKETING PROGRAM

One aspect of the mass communications campaign that combined communications with contraceptive distribution was the Nirodh Marketing Program. The program was based on the idea that the problems identified in the Fourth Plan could be overcome by using a conventional, non-controversial and cheap contraceptive method – the condom – and distributing it through existing commercial networks, backed by an aggressive advertising campaign. Rather than trying to implement the distribution and acceptance of newer methods like the IUD, which relied on training new medical personnel and further expansion of the medical and administrative machinery of family planning, conventional contraceptives could be easily added to pre-existing and effective distribution chains.

The Program had its origins in the 1963 Evaluation Committee of the Central Family Planning Board. The Board was intended to evaluate the current program and make

⁶³ Ibid, p.20

⁶⁴ Govind Narain, 'India: The Family Planning Programme Since 1965', p.9

⁶⁵ Frank Wilder, 'Mass Motivation for Fertility Control – 6 Basic Points' (1969), Ford Foundation Unpublished Documents, B18527/F1517, p.4

suggestions for improvement, which would be incorporated into the Fourth Plan.⁶⁶ As part of the evaluation process a subcommittee on contraceptives had been formed which included K.T. Chandy, Director of the Indian Institute of Management in Calcutta. Chandy was asked to draw together 'members of private industry' to find ways to 'extend the distribution of contraceptive services, especially the condom' through commercial channels. The study group investigating this proposal included a sociologist-demographer, an advertising executive and a social psychologist⁶⁷, and worked closely with the Ford Foundation consultants, particularly Peter King.⁶⁸ Their purpose was to find ways to use the marketing resources of the private sector to help advance family planning in India. They set a target group – 70.6 million married couples, whose "wife age" ranged between 15 and 44, and who were fecund. The group proposed to devise an effort that would reach the entire target group, 'indeed, the entire population'.⁶⁹

Urban, middle-class and employed couples with three or more children were the Program's main targets. Urban areas, which were "retail dense", provided a good base for the distribution network. The aim was that condoms would become as readily available as any other product. Cities with populations over 50,000 were the primary targets, followed by smaller cities, villages with "urban characteristics" and finally rural villages. The 342 million people who lived in insufficiently urban areas would still be exposed to the Program, it was argued, when they visited larger towns or cities.⁷⁰ When the project began in 1963, total condom consumption was 30 million units per year, accounting for only 0.7% of the targeted 70.6 million target couples. While the condom use rates had shot up between 1956 and 1963 – increasing over 100 times the original amount – the aim was to further develop condom use. 'Contrary to public opinion', the report argued, 'husbands are almost as eager to limit family size as wives'.⁷¹

To implement the program, condoms were to be branded with a Government trademark, distributed and sold at a low price using the existing networks of wholesalers and retailers, encouraged by a massive advertising campaign. The advertising campaign would employ a wide variety of media, as well as intensive promotion at the point of sale. Experiences commercial selling organizations should 'train and stimulate retailers to sell aggressively', the report recommended. In return, retailers would receive the 'customary percentage' from the

⁶⁶ K.T. Chandy, et al., 'Proposals for family planning promotion: A marketing plan' *Studies in family planning* 1:6 (1965), p.7

⁶⁷ Ibid, p.7

⁶⁸ Kathleen D. McCarthy, 'From Governments to Grass-Roots Reform: The Ford Foundation's Population Programmes in South Asia, 1959-1981', pp.299-300

⁶⁹ K.T. Chandy, 'Proposals for family planning promotion', p.7

⁷⁰ Ibid, p.8

⁷¹ Ibid

gross profit margins.⁷² It was crucial that the program be providing a high quality product, well packaged, with 'maximum user acceptance'. Condoms would be sold at prices 85% lower than standard retail price, and the 'most expert professional personnel in the nation' would be enlisted to 'design, coordinate and execute' the program.⁷³

The public-private enterprise was only one aspect of the proposal. Success also relied on the promotion of a massive advertising campaign to promote family planning. A well-designed program, it was argued, had the potential to produce a 'highly beneficial result'. They recommended focusing the majority of the efforts on promoting family planning in general, with only 10% of the total budget going towards directly advertising condom use. 'In other words', they argued, 'we view the main task of advertising the program as the stimulation of the practice of family planning. Technically this is known as primary demand creation'.⁷⁴ The aim was to create social attitudes that were favourable to contraceptives making them as easily and naturally accepted as other commodities. The product – the condoms – should be sold openly, in the same commercial channels as other products, literature should be widely available alongside advertising, and retailers convinced to actively promote sales. Such a program, it was concluded, had 'high social value' as well as the possibility for a 'spectacularly high' potential pay-off. The social value was measured as the 'economic value to the nation of preventing one birth', which was weighted against the cost to the Government of preventing the birth. A conservative, but still reasonable estimate, the report concluded, was that the program would return results at a rate of at least 75 times the amount of subsidy – 'the potential return on investment...is unquestionably enormous'.⁷⁵

However, the program relied heavily on having a large supply of high quality condoms, which India was not capable of domestically producing in the late 1960s. The public-sector condom factory – The Hindustan Latex Co., - established by the Government in 1968 had been packaging imported condoms to cut costs,⁷⁶ as well as manufacturing their own, though they faced a number of challenges between 1968-1969 stemming from a lack of local experience and expertise in the manufacturing process, and water shortages that severely impacted supply and quality.⁷⁷

⁷² Ibid

⁷³ Ibid

⁷⁴ Ibid

⁷⁵ Ibid, p.12

⁷⁶ 'Hindustan Latex Ltd., (A Government Undertaking): Statement by the Chairman Shri D. J Madan', *The Times of India*, October 5th 1970

⁷⁷ Ibid

INCENTIVES, DISINCENTIVES, CONTRACEPTIVES

By the late 1960s, Chandrasekhar argued, the political tide could be seen to have turned. No one would have believed that twenty years previously India would have embarked on a program to control its fertility, or that people would have been so swift in changing from condemnation to approval of 'welcome innovations' in birth control to provide better health and more prosperity. India had 'more mental freedom' than even many developed countries, and the work started in 1951 was gathering momentum. The program had escaped the Government clinics and was being promoted by a wide range of participants, including indigenous doctors, voluntary organizations, and leaders of business and industry. An 'army' of civil servants and family planning workers were carrying the program to the villages in a show of 'real national support'.⁷⁸ There was a perceptible decline in birth rate, he maintained. 4.2 million people had been sterilized, preventing 10-12 million births through sterilization alone. The Loop had prevented a further 15 million. There was a strong determination to reach the target birth rate of 25 per thousand by 1975-76.⁷⁹

This did not mean he had been entirely successful in implementing the program. Chandrasekhar's outspoken criticisms of the early family planning efforts to the American press had earned him a firm rebuke from Indira Gandhi.⁸⁰ Likewise, while he continually stressed the voluntary nature of the family planning program, indications undercutting these abounded – not only were his aids reportedly advocating that 45 million men had to be "caught" and sterilized, there was a growing emphasis that vasectomy – particularly of the rural poor, and of low-income groups – was the solution to the population problem.⁸¹ Chandrasekhar was not alone in advocating increasingly oppressive methods. While 'the psychological climate' that was needed for the 'serious implementation' of the program was on its way to being created, many argued that the "hard facts" of population growth indicated that more needed to be done. India's population as of 1968 was over 520 million. 'One in every seven persons is a citizen of India', and they had access to only 2.4% of the world's land, despite being 14% of the total population.⁸² These evocations of India's population size in reference to size of the Earth (and by implication its carrying capacity) were not new. Chandrasekhar had been making them – as had others India – since the 1940s, and Paul Ehrlich's 1968 sensationalist account of population growth *The Population Bomb*, with its vision of unrestrained growth leading to disaster was

⁷⁸ Sripati Chandrasekhar, 'How India is Tackling Her Population Problem', p.649

⁷⁹ Ibid, p.650

⁸⁰ Indira Gandhi to Sripati Chandrasekhar, July 19th, 1968
[http://libraryexhibits.utad.utoledo.edu/LLVX/cc-llvx-7for_I_Gandhi2.jpg] [Accessed 02/06/2015]

⁸¹ Ian Dowbiggin, *The Sterilization Movement and Global Fertility*, loc. 2584

⁸² Ibid, p.642

part of a larger trope not only in demographic arguments but also in popular culture and science fiction by the late 1960s.⁸³

‘The technology of health and hygiene’ Chandrasekhar argued, spread far more quickly throughout India than ‘the technology of production and economic growth’.⁸⁴ The goal therefore was to reduce growth, and while changing attitudes was a ‘major problem’, and one being tackled through the mass communications program, the other problem was in finding a ‘suitable’ contraceptive. The surveys and experiments conducted in the 1950s and 1960s had made clear how many conventional contraceptives, such as foam tablets, jellies, and diaphragms, were unpractical for many people. Not only were they expensive, and hard to get hold of - particularly for methods like the diaphragm, which required a fitting by a doctor - they could be generally unpleasant to use, particularly in villages where there could be limited access to running water, electricity, and privacy.⁸⁵ Among all of these problems, however, Chandrasekhar argued the most significant barrier to use was motivation. This was the logic behind the cafeteria approach, he explained, which would help overcome motivation problems by offering people a range of “scientifically approved” methods, from which they could chose the one that suited them best. There were four methods available: sterilization, the IUCD, condoms, and oral contraceptive pills, though for most people the Pill was not an option. All services for sterilization were provided for free, and patients were also given a small incentive. IUCD’s were provided, though their lack of popularity by 1968 was widely acknowledged. Condoms were being aggressively promoted through projects like the Nirodh Marketing Program, and the Pill – which had only recently approved for use in India – was being trialled with American support.⁸⁶

The Sixth All India Conference on Family Planning illustrated how comfortable family planners and government officials were with the idea of incentivizing the small family, as well as discouraging large families; and the use of contraceptive technology to aid this process was uncontested. However, while there was no significant objection to the stresses placed on sterilization, IUCD and conventional contraceptives from among the family planners and administrators, there were significant hurdles to be overcome to implement these ideas. Many of these problems were bound up with larger problems of supply and implementation. Raina

⁸³ See for example Season 2, Episode 15 of Star Trek (The Original Series) “The Trouble with Tribbles” in which Captain Kirk is at one point literally buried by tribbles, who reproduce extremely rapidly (1967); and William F. Nolan and George Clayton Johnson’s 1967 book *Logan’s Run*, which depicts the dystopic outcomes for society after “critical population mass” is reached in the year 2000.

⁸⁴ Chandrasekhar, ‘How India is Tackling Her Population Problem’, p.643

⁸⁵ Ibid, p.644

⁸⁶ Ibid, p.645

had noted in 1963 that the manufacture of rubber contraceptives was not extensive enough to meet demand⁸⁷; a factor that had also impacted the Nirodh Marketing Scheme, which relied heavily on imported and “gifted” condoms, as did the free distribution of condoms as part of the larger family planning scheme. While India was self-sufficient in the manufacture of other conventional contraceptives as well as in IUCDs, to meet the goal of reaching the 90 million target couples and preventing 9 million births annually, the infrastructure and availability of family planning commodities needed a boost. By 1968, the Family Planning services available were:

4552 rural family welfare planning centres

13550 family planning sub-centres

1591 urban family planning centres

3578 (of which 202 were mobile) IUCD units

3731 (of which 256 mobile) sterilization units

Over 1 million IUD insertions and 2.3 million sterilizations had been performed.⁸⁸ However, while production of IUCDs could keep up with demand, there was a shortage of doctors, especially female doctors, which was a ‘major set-back’ to the sterilization program. Compounded by a shortage of hospitals beds available for those who had undergone sterilization of IUCD insertion, the Government had attempted to increase bed availability by 5000, and was offering inducements to doctors to increase training, recruitment, and postings to rural areas. There was also a problem of availability of surgical supplies. The Surgical Instruments Plant in Madras manufactured instruments for IUCD and vasectomy procedures, with the approval of the Government. 1650 kits for ICUD and vasectomy had been supplied mid-1969, which left several states under-supplied.⁸⁹

Chandrasekhar actively sought international assistance to help implement the Fourth Plan. The main form of aid sought and granted to India in this period was in the form of commodities and ‘consultancy services’.⁹⁰ The largest donors were from the US, though Sweden, Denmark, Japan and the UN also contributed significantly over the Fourth Plan. The Ford Foundation had granted \$2.28 million USD for a three-year period, primarily allocated to fellowships, research and equipment. The Population Council, which had funded the Kanpur

⁸⁷ B.L Raina, *Family Planning Programme: Report for 1962-1963*, p.29

⁸⁸ Lok Sabha, General Budget 1967-1968, B53/F12 [UofT]

⁸⁹ Surgical Instruments Plant, 1st May 1969, Career Files, Reports, B53/F26, p.3

⁹⁰ Family Planning Programme in India: International Assistance, Career Files, Rajya Sabha – Parliament, B53/F25 [UofT], p.1

IUD manufacturing plant, also granted aid for fellowships. Sweden had been offering aid since 1968, primarily in form of equipment – 150,000 condoms, 20 printing units, 250 tons of paper, 500 tons of newsprint, an ‘electric testing machine’ and a packing machine, as well as 100,000 Swedish Crowns as a contingency fund.⁹¹ Denmark and Japan had both offered aid for contraceptives; Japan extended a line of credit for their purchase, while Denmark sent 10,000 of the “Antigon” IUD for testing and possible use.⁹²

By far the largest donor, however, was USAID. USAID was created in 1961 during the Kennedy Administration during a period when the US was increasingly coming to see population growth around the world as a legitimate cause for intervention.⁹³ The first head of USAID, David Bell, was an economist who believed that high rates of population growth had a negative effect on economic development. However, while the general atmosphere was becoming more supportive of intervention, USAID was not officially allowed to donate funds for population control and family planning until 1965. The change had been fought for on two fronts: the evidence of KAP studies from the developing countries that appeared to demonstrate that women wanted to control and lower their fertility; and that high rates of growth slowed economic development which was a ‘barrier to modernization and a threat to international social order’.⁹⁴ Under Lyndon Johnson, who had ‘added the birth-rate of the world’s poor to his agenda of social conditions that had to be changed’, the tide had begun to turn.⁹⁵ Johnson had announced in his 1965 State of the Union address that the US could seek to address and “deal with” the “explosion in world population”. USAID funding for technical assistance in family planning was made available for Governments, if they requested it.⁹⁶

Concern over the sensitivity of population control persisted, and successive heads of USAID remained cautious about using US funding to support family planning. However, in 1967 Congress earmarked funds specifically for population control, which opened the door to US funding of family planning projects throughout the developing world. The 1965 Population Crisis Committee illustrates how the American political establishment were approaching population control and family planning from the perspectives of development and fear of a growing food crisis. General William Draper, who had been strongly arguing for US aid for population control since the 1950s, noted that ‘the stork is outrunning the plow’, and that population control was ‘yeast in the bread of economic development’. He cautioned, however,

⁹¹ Ibid, p.4

⁹² Ibid, p.5

⁹³ Peter Donaldson, ‘On the Origins of the United States Government’s International Population Policy’ *Population Studies* 44:3 (1990), p.389

⁹⁴ Ibid, p.391

⁹⁵ Ibid

⁹⁶ Ibid

that the aid given by the US to family planning programs had to be part of voluntary programs to assist nations that had requested it, and 'not a Madison Avenue population effort'.⁹⁷

While Draper was arguing for a temperate US involvement in family planning, Reimart Ravenholt – the head of USAID since 1966 – took the opposite approach. A firm advocate that 'contraceptive availability was all important', Ravenholt believed that supplying contraceptives to meet demand in developing countries was the 'most effective way to reduce fertility'.⁹⁸ Ravenholt's strong advocacy for 'supply-side' fertility control aligned with Chandrasekhar's aims and needs during the Fourth Plan. Chandrasekhar had long been in favour of American aid to India, noting in 1965 that 'American aid has given a much-needed shot in the arm to the Indian economy, boosted its morale, promoting its stability and enhanced its productive capacity...without interfering with Indian thinking and planning'.⁹⁹ In January 1968 Chandrasekhar had travelled to America on the orders of Indira Gandhi to meet with Johnson about funding for family planning in India. Their meeting lasted 'for most of the afternoon', and Chandrasekhar was flown to Johnson's private ranch so they could continue discussions over the weekend.¹⁰⁰ The outcome was favourable – Johnson pledged \$435 million in "loans and credits" to India. USAID had authorized a total of \$5.5 million between 1967 and 1969, the majority of it for 'commodities' as well as training and research development.¹⁰¹ USAID agreed to supply India with 1 million cycles of oral contraceptive pills to be trialled, as well as 150 million condoms to be used as part of the Nirodh Marketing Program, two film units, tape recorders and radio support, equipment to assist with a mailing system (to be used as part of the mass communication direct mailing campaign), and support for training, research and for an Intensive Districts Program.¹⁰² The benefit of aid went beyond its monetary value, Chandrasekhar argued – 'this wide international support implied a common concern over the population...and the sharing of the available scientific knowledge towards its solution'.¹⁰³

Like Ravenholt, Chandrasekhar argued strongly that the solution to the population problem would rest on getting contraceptives to people, as much as it would on instilling the small family norm. While India had received substantial foreign aid for many of the mass communication and education projects, as well as for contraceptives like the Pill and condoms,

⁹⁷ Population Crisis Committee: Foreign Aid for Family Planning S5/SSC/B43/F17 [UofT], p.7

⁹⁸ Oscar Harkavy, *Curbing Population Growth*, p.47

⁹⁹ Sripati Chandrasekhar, *American Aid and India's Economic Development*, (New York, 1965), p.6

¹⁰⁰ Ian Dowbiggin, *The Sterilization Movement and Global Fertility*, loc. 1689

¹⁰¹ Family Planning Programme in India: International Assistance, Career Files, Rajya Sabha – Parliament, B53/F25 [UofT], p.2

¹⁰² Ibid, p.3-4

¹⁰³ Sripati Chandrasekhar, 'The Programme, now Government's, must become people's', p.4

it was the IUCD and sterilization that he believed were the solution to India's population problem. From the beginning of his appointment, Chandrasekhar moved easily between arguing that the foundational basis of the family planning program was voluntary acceptance, and advocating for compulsory sterilization. He raised the issue of compulsory sterilization mid-year in 1967, arguing that it should be put into law as part of a 'national campaign to win support for compulsory sterilization of men with three or more children'. He acknowledged that introducing an element of compulsion would radically change the program, but argued that 'a drastic situation requires a drastic response'. He was, he claimed, a "recent convert" to the idea of compulsory sterilization, a transformation brought on by his promotion to Minister. Compulsory sterilization had been raised in Parliament, he said, and there had been no hue and cry. What he believed to be inadmissible on the grounds of political feasibility seemed actually to be possible, particularly when Maharashtra declared its support for the idea. Presenting the idea to 17 Chief Ministers, he secured the agreement of 15.¹⁰⁴ Sterilization was needed, he argued, because it was an effective method to encourage – and potentially enforce – the adoption of India's visions for progress. 'If you have ten children and sleep on the pavement...you are obstructing traffic, posing a menace to public health, and making a mockery of India's aspirations to a welfare state', he explained. 'There is no doubt about it – sterilization is the only answer for India!'.¹⁰⁵

This was evident in the contraceptive methods that were heavily promoted by Chandrasekhar – sterilization and the IUD. That the family planning program would be "national", and that national-targets should be set, and met, to meet national goals for development had not been presented as being at odds to the individual in discussions about the Fourth Plan. As had been often repeated – the choice of the number of children was ultimately up to parents, who had to decide for themselves. While the programs of mass education and mass education had tried hard to influence the decision making processes of people – to instil the small family norm so they would "voluntarily" chose the small family – they were still free from coercion and compulsion in a traditional sense. However, coercion was never absent from Chandrasekhar's arguments about contraceptive use. Even though Parliament had rejected the proposal for the compulsory sterilization¹⁰⁶, there were other methods available to boost the number of acceptors: 'A crisp one hundred-rupee note to be handed to the patient immediately after he has undergone a Vasectomy is the only way of making the masses cooperate with a crash birth control program', he argued.¹⁰⁷

¹⁰⁴ Joseph Lelyveld, 'A birth-curb plan is pressed in India' *New York Times*, July 24, 1967

¹⁰⁵ Ibid

¹⁰⁶ 'India weighs a law to sterilize fathers of more than 2', *New York Times*, June 19, 1967

¹⁰⁷ Sripati Chandrasekhar, 'Sterilization Key to Population Control', *Population Review*, 8:2 (1964); Population Policy and Family Planning in India, S3/SSA/B31/F2, [UofT] p.1

The issues of the small family norm, education, communication, incentives, target setting and contraceptives were eagerly taken up at the Sixth All-India Conference on Family Planning held in 1968. The tension between the individual and the nation in family planning was evident. In her inaugural speech, Indira Gandhi stressed that the 'people's programme' of family planning was paramount, noting that the 'entire official machinery' had been bent to the task of creating the program and making it work, though voluntary agencies were also urgently needed. However, the 'people's programme' was increasingly being focused on the actions of the individual. The agricultural programs had demonstrated that the promise of higher profit was enough to induce people to change their agricultural practices; this is what the family planning program also needed to capitalize on. Targets – while necessary and useful – too often subordinated the 'desirable' to the 'practical'. However, while the "people's programme" was intended to help the national realize higher standards of living and faster development, the biggest drawback was individuals - 'The biggest enemy of family planning is the lassitude of our people', she argued. Not only was enthusiasm low, people make 'little attempt to exert themselves'. Here technology offered a solution – a contraceptive device with a 'long lasting effect' would minimize these problems.¹⁰⁸ Others at the conference also took up the problem of motivating individuals in service of a national cause. Incentives and disincentives, like contraceptive technology, appeared to offer a solution. 'I am hesitant to call them disincentives', argued S.P Jain, 'they do not mean denial of rights but withdrawal of concessions in the interest of society'.¹⁰⁹ In Maharashtra, he noted, disincentives had already been introduced for a number of cases, including the removal of free medical treatment, maternity leave, allotment of housing, "freeships" and scholarships for certain families who had over three children.¹¹⁰

The Small Family Norm Committee, which issued its report in 1968, had advocated both the provision of incentives as well as disincentives to help promote the small family norm. To this end the Committee allowed the continuation of incentive payments for sterilization and IUCD, and suggested that mothers who were industrial workers could receive one-month's salary as a bonus if she were sterilized after having children, and half a month's salary if she chose the procedure after her third child. This would provide, the Committee maintained, 'adequate compensation' for lost maternity leave. The Committee also suggested other disincentives, including the limitation of insurance payments to families with more than three children, and the incentive of offering couples with fewer than three children more favourable

¹⁰⁸ Indira Gandhi, "Inaugural address", *Journal of Family Welfare* 15:3, (1969), p.5

¹⁰⁹ S.P Jain, 'Programme Planning, Evaluation and Research', *Journal of Family Welfare* 15:3, (1969), p.29

¹¹⁰ Ibid

life insurance premiums. Other measures, such as the removal of scholarships and other Government benefits to families with more than three children had also been recommended.¹¹¹

IMPLEMENTATION: THE EMERGENCE OF THE MASS CAMP

The system of target setting and incentives, which also encouraged the use of family planning “drives” and “family planning fortnights” was being criticized by researchers in the late 1960s. The process of implementing the time-bound targets was challenged within the context of the democratic claims of the family planning program. Poorer States frequently lacked well-staffed family planning centres and well-educated, highly motivated extension educators, and struggled to meet their targets with negative outcomes for everyone involved in the family planning program.¹¹² The intensive sterilization and IUCD insertion schemes, which had begun in 1964 and 1965 had put incentivization into place throughout the whole family planning scheme – the “acceptors”, doctors, and non-family planning worker ‘motivators’ – all received money for each procedure performed. Targets were closely connected to these schemes. From 1965 States had been expected to achieve targets for eligible couples reached, and a spirit of competition between the States had been fostered. This was amplified under Chandrasekhar, as State-level progress in sterilizations and IUCD insertions was measured on a ranking system – taking both individual cases, as well as “combined scores”.¹¹³

By 1968 the system of family planning drives and “intensive periods” had reached the point where, in Uttar Pradesh, there were only two two-week windows in October and November when there was no family planning fortnight in operation. The total effect was that the ‘family planning programme in UP was occupied in one continual drive’.¹¹⁴ The atmosphere of perpetual drives towards meeting program targets raised a number of concerns about the nature of the program and how it was being implemented – were many of the “motivational workers” employed during the drives, who were not extension educators or family planning workers, able to properly educate “acceptors” and secure their consent? Did the sum of Rs. 10 being offered, given that it was five times the daily wage, could as a bribe? Did the ‘high pressure’ programs really encourage voluntary change? ‘Finally’, Elder Jr., asked, ‘in a programme the future support of which would depend on a popularly elected legislature, how

¹¹¹ ‘Small Family Norm Committee’s Report’, *Journal of Family Welfare* 15:2, (1968), pp.69-70

¹¹² Robert Elder Jr. notes that in Uttar Pradesh many of the family planning centers did not have any doctors on staff. Robert Elder Jr., ‘Targets vs. Extension Education: The Family Planning Programme in Uttar Pradesh’ *Population Studies*, 28:2 (1974), p.249

¹¹³ The “combined” figures were calculated on the basis that 3 IUCD insertions was equal to 1 sterilization. Sripati Chandrasekhar, ‘The Programme, now Government’s, must become people’s’, pp.6-7

¹¹⁴ Robert Elder Jr., ‘Targets vs. Extension Education’, p.250

would negative population reaction to the programme affect legislative attitudes of support for family planning?’¹¹⁵

Extension educators and family planning educators, who were perceived to be linchpin of the family planning program in rural areas, were often deeply ambivalent about their tasks. They were frequently not highly motivated champions of family planning and the small family norm, and rather were ‘reluctant horses’ that officials had to ‘ride’ over the rough ground of family planning¹¹⁶. Family Planning workers frequently felt that the number of cases they referred was more important than the quality of those cases. Some were threatened with dismissal, having their pay or expense allowance withheld if they did not meet their quotas¹¹⁷. These problems were exacerbated by the larger problems of target-calculation and target setting from the Central Government. Targets were calculated on a per-head basis, and it was from this that the calculations of future targets and of births-prevented were made.¹¹⁸ However, many of the people being motivated – particularly to accept sterilization – were frequently older, at the end of their childbearing and child-siring years. While the value of the operations of these people could be explained in social terms – as creating a core of “acceptors” that helped to normalize the procedures – the figures used to generate the targets were not broken down by age, and thus provided a misleading sense of progress, particularly with respect to births prevented.¹¹⁹ The total effect, Elder Jr. argued, was that ‘programme policies were creating reservoirs of distrust’, distrust that was taking hold not only amongst the people targets as ‘acceptors’ or as ‘eligible couples’, but also among State legislators, who were increasingly finding that the program was neither popular or effective.¹²⁰

¹¹⁵ Ibid

¹¹⁶ Pandit Pantakar, Lilian Dey *Social Communication in Family Planning: A Casebook* (Bombay, 1973), p.20. This casebook provides an account of the experiences of Jai Chandra, an Agricultural Extension Worker who also worked in Family Planning education, documenting his ambivalence and dualism towards the family planning project as a whole, including his reluctance to encourage some people to undergo sterilization owing to his personal affection for them. The commentators – two behavioral scientists writing in the 1970s – observe that Jai Chandra’s reluctance and ambivalence stems from his lack of acceptance of the small family norm himself. He had 9 children, did not want to practice family planning, and saw family planning as a failure to persist in other forms of economic advancement.

¹¹⁷ Robert Elder Jr., ‘Targets vs. Extension Education’, p.251

¹¹⁸ P.M Blame, ‘Implications of Selective Feedback in Aspects of Family Planning Research for Policy-Makers in India’, *Population Studies*, 26:3 (1972), Citation 12, p.440

¹¹⁹ Robert Elder Jr., ‘Targets vs Extension Education’, p.256

¹²⁰ 81% of legislators in Uttar Pradesh polled by Robert Elder Jr. reported that the program was both unpopular and unsuccessful. Robert Elder Jr., ‘Targets vs Extension Education’, pp.259-260

By 1970 the emphasis on family planning, if not the underlying policy, had started to change. Camps, which had been used in the family planning program since 1966, were becoming increasingly popular.¹²¹ Maharashtra had been one of the early pioneers of this method. The camp set-up simplified the administrative aspects of the program, allowing administrators to concentrate supplies and personnel in one area, rather than spreading them throughout the villages. This model, which had been bolstered through incentives and disincentives, reached its apex in the Ernakulum Camps held in Cochin in 1970 and 1971.¹²² The camps were organized by the district collector and district family planning bureau, with help from local voluntary agencies and 'local-civic leadership'.¹²³ A 'family planning festival', the two camps sterilized a world-record number of people – 78,423 over the two months the camps were operating.¹²⁴ The camps were deemed a success by many, evidence that 'large masses of people can be motivated to accept sterilization in a short span of time by an organized and concentrated effort'.¹²⁵ They were intended to be a 'first step' in the intensification of the family planning program, and to create an 'immediate and substantial demographic impact'.¹²⁶

The camp was held at a large auditorium in Cochin, and made as festive as possible. An 'architectural façade' stood at the front of the auditorium, and the whole structure was decorated and well lit. Entertainment was available 24 hours a day, and there was free food and free coffee for all acceptors. The process – from entry, to preparation, operation, and follow-up – was designed to run as smoothly as possible. Operations were conducted in 50 white-painted cubicles, and incentive packets and condoms were provided at incentive counters.¹²⁷ The high incentive payments offered to acceptors were acknowledged to be one of the camps major draws. Rs. 101 was offered to men, and Rs. 109 to women. This included a CARE gift-kit, which had 3kgs of rice, one saree and one dhoti, as well as a lottery ticket and free food at the camp. Transport and any medicines needed were also provided for free.¹²⁸

¹²¹ Roy C. Treadway, Jacqueline E. Forrest, 'Family Planning Progress in India: An Evaluation', *Studies in Family Planning*, 4:6 (1973), p.152

¹²² Maharashtra had implemented harsh disincentives in 1967, before the Small Family Norm Committee Report was published. The State sought to make sterilization compulsory, to restrict medical treatment and maternity benefits, and to deny government scholarships, loans and housing to families with more than three children. Matthew Connelly, *Fatal Misconception*, loc. 3096-3099

¹²³ S. Krishnakumar, 'Kerala's Pioneering Experiment in Massive Vasectomy Camps', *Studies in Family Planning*, 3:8 (1972), p.177

¹²⁴ Ibid

¹²⁵ Ibid

¹²⁶ Ibid, p.178

¹²⁷ Ibid, pp.178-179

¹²⁸ Ibid, p.180

Vasectomy camps proliferated throughout the early 1970s. Chandrasekhar, who had stepped down as Minister in 1970 after losing his seat in the Rajya Sabha – was supportive of this development.¹²⁹ During an eight- week campaign in Gujarat, 221,935 men had vasectomies, spread over 1,000 camps throughout the State.¹³⁰ Camps were also carried out in Bihar and Uttar Pradesh. Elder notes that the vasectomy camp approach was the first time that the State came close to meeting its targets, but also that the camps, like the intensive efforts that preceded them, raised concerns over the ‘case quality’ and follow-up care offered. The payment of large incentives, he argued, signalled the abandonment of the extension approach.¹³¹ P.M Blame questioned both the Ernakalum Camp and subsequent camps held in Bihar, noting ‘Were the vasectomized patients at the phenomenally successful camp at Ernakalum well-informed of the philosophy and techniques of family planning? Or was the success due merely to excellent administration and the putting across of an image of carnival and profit for all takers?’¹³² In even less well-informed areas the question – and problems –were more significant. Camps in Bihar, Blame noted, had vasectomized patients who were ‘extremely ill-informed’, who appeared to have accepted the vasectomy ‘on the spot, often because the patient had run out of money at the fair’.¹³³

POPULATION CONTROL AND THE POLITICS OF FREEDOM

Viewing the Fourth Plan as determined by the promise, availability and implementation of technological and technocratic approaches to population obscures many of the other debates that were being carried out simultaneously, in particular those over rights, and on the democratic politics of population. While these two often looked on technology as a “solution” to the population problem, or as symbolic of India’s modernity, they were also situating technology within the broader framework of planning, policy-making, development and democracy; processes as much about individual rights and freedoms as they were about meeting demographic targets or the adoption of new social norms.

In the 1950s, Chandrasekhar had argued that ‘efforts to reduce this high fertility rate must form part of our democratic population policy’. Birth control, he argued, was the scientifically determined answer to high fertility rates, and reform to make birth control acceptable had to proceed ‘no matter what the cost’.¹³⁴ He argued further that: ‘A population policy based on and balanced between our available needs and resources is not a luxury but a

¹²⁹ Ian Dowbiggin, *The Sterilization Movement and Global Fertility*, loc. 2589

¹³⁰ V.H Thakar, Vinod M. Patel, ‘The Gujarat State Massive Vasectomy Campaign’, *Studies in Family Planning*, 3:8 (1972), p.186

¹³¹ Robert Elder Jr., ‘Targets vs Extension Education’, p.261

¹³² P.M Blame, ‘Selective Feedback in Family Planning Research in India’, pp.443-444

¹³³ Ibid, p.444

¹³⁴ Sripati Chandrasekhar, ‘A Population Policy for a Free India’, S3/SSA/B31/F4 [UofT], p.3

bare necessity...political freedom without economic betterment and social progress of the masses is at best a mockery. The fateful choice before the Government and people of India is not between guns and butter but between half-men and whole men'.¹³⁵ Chandrasekhar's vision for India was one where population was part of a larger progress towards democracy, freedom, and plenty – where 'the inventions of modern science' were available to all, and people were free from insecurity, both from within and without.¹³⁶ The Government was instrumental in achieving this, so that people could be 'whole men', participating in society, though the use of birth control to reduce fertility was also an essential condition.

The rhetoric of "freedom" had been raised again in 1967 in the context of family planning. 'Freedom of choice' and 'improving family function' were euphemisms for reducing birth rates, George Foster had argued at the Behavioural Sciences and Family Planning Conference, sparking a heated debate. The consensus that emerged was that 'individual freedom, family integrity [and] population control are not mutually exclusive but can and must be brought into a working synthesis'.¹³⁷ This characterized many of the tensions in the Fourth Plan. Between 1967 and 1973 the family planning program in India varied widely, with arguments being made, often by the same people, for both greater freedom and more control. The Fourth Plan had been articulated in terms of national aims of economic development and the social good of adopting the small family norm. However, many of the criticisms levied against the implementation of the Plan by the early 1970s focused on how the policies impacted on individuals. The emphasis on individuals had varied between 1967-1972; often when individuals were evoked it was as the 'unmotivated' and 'non-acceptors' of family planning, or as the individual recipients of particular contraceptive interventions.

Yet, running through the arguments for social change and contraceptive use during this period were also a set of arguments that were expressly about the family and individual rights and how they related to control – of fertility, and of the body. In 1968 J.P Narain had argued that family planning would liberate women from their fate as 'mother, wife, cook, washerwoman, sweeper, and servant', bound to an unwanted cycle of childbirth. 'Birth control', he argued, 'will usher in a new age for women of India...Instead of merely slaving away in the name of family love, wifehood and motherhood, women will gain better health, self-respect and leisure'.¹³⁸ Chandrasekhar – though he did advocate for abortion to lower fertility – was also a strong advocate of individual choice with regards to birth control, and particularly to abortion.¹³⁹ This

¹³⁵ Ibid

¹³⁶ Ibid

¹³⁷ Ibid

¹³⁸ Jaya Prakash Narain, 'Graver than an Invasion', *Yojana*, 15 September (1968) p.1

¹³⁹ Sripati Chandrasekhar, *Infant Mortality, Population Growth and Family Planning India* (Chapel Hill, 1972), pp.322-323

can be seen in some of his justifications for sterilization: while sterilization was the best method for India owing to its simplicity, the need for on a single 'acceptance', and separation from the sex-act, he argued it was important that couples also have recourse to change their minds if their circumstances changes (for example, if a child died). To this end, he supported recanalization procedures so that couples in this situation could have further children 'in the natural way'.¹⁴⁰ Likewise, official statements – while often not upheld in practice – stressed that 'written consent of the spouse' was required for sterilization procedures to be carried out, and a reliance on verbal consent could produce a 'risk of break-up of the marriage'.¹⁴¹

Chandrasekhar's advocacy for the liberalization of abortion in India puts the debates over reproductive rights during the period of heightened technocratic and involuntary rhetoric into a different light. Mohan Rao argues that abortion was advocated on the grounds of the 'over-riding importance attached to controlling numbers', and while this certainly was a significant aspect of the legislation, it was by no means the only one.¹⁴² Chandrasekhar saw in abortion another weapon in the arsenal of family planning, as well as a way to fundamentally alter society, advocating tackling the problem of son-preference (which had been a barrier to family planning acceptance) through the practice of sex selective abortion.¹⁴³ However, he also argued strongly that abortion should be used to support women's lifestyle preferences; that it should be available 'on demand' and 'no questions asked'. 'It is my belief that any woman in the country, at any time, should be able to obtain a legal abortion from a public hospital or a private physician without giving reason' he argued. 'It is high time that women become their own masters'.¹⁴⁴

Arguments about the right of individuals and families to choose the spacing and number of the children had been – as in the case of abortion in India – increasingly debated from the late 1960s on. The 'freedom to choose' family size and child spacing had been recognized as a fundamental human right; one that, many argued, needed to be 'made a reality' – though this was tempered by arguments about the 'awesome responsibility' of choice and the need for education and self-discipline.¹⁴⁵ S. Radhakrishnan's address to the Third International Conference on Planned Parenthood, delivered in 1952, was reprinted with a foreword by Chandrasekhar in 1969. Radhakrishnan had evoked both national development and the

¹⁴⁰ 'Effect of Sterilization on Population', Sterilizations, B54/F5 [UofT], pp.1-4

¹⁴¹ 'Note for the Consideration of the Cabinet Committee on Family Planning: F.P Programme – Sterilizations – Need for consent of the Spouse before performing sterilization operation – Sterilization operation after two living children' (1967), Sterilizations, B54/F5 [UofT], p.1

¹⁴² Mohan Rao, *From Population Control to Reproductive Health*, p.41

¹⁴³ Raj Pal Mohan, Raj Pa Mohan 'Abortion in India', *Social Science*, 50:3 (1975), p.142

¹⁴⁴ Sripati Chandrasekhar, 'Should we Legalize Abortion in India?' *Population Review* 10:2 (1966), Population Policy and Family Planning in India S3/SSA/B31/F2 [UofT], p.8

¹⁴⁵ Wilbur J. Cohen, 'Freedom of Choice' *Studies in Family Planning*, 1:23 (1967), p.4

Declaration of Human Rights in his discussion of planned parenthood. India was committed to being a social welfare State, he argued, and people were no longer content to 'accept as axiomatic' conditions of poverty, misery or starvation. However, the State was not in a position to offer this assistance, and so 'we must try to do something to limit population'. This, he maintained, was in keeping with civilization; the control over the animal world, and man's intelligence to adapt to a changing environment.¹⁴⁶ Even Gandhi, Radhakrishnan noted, had distinguished between the ideal and the permissible – and birth control, while not ideal, had to be accepted as permissible in the context of the development of the 'social welfare State'.¹⁴⁷

THE HIGH POINT OF TECHNOCRACY?

The late 1960s and early 1970s are often presented as the pinnacle of technocratic approaches to family planning and demography, approaches taken to extremes in the Fourth Plan. "Gimmicky" technocratic solutions - such as the transistor radio incentive for men who agreed to be sterilized, or the use of helicopters to fly teams of family planners to remote villages where they could perform sterilizations and insert IUDs - were promoted by Chandrasekhar as part of his efforts to "try everything" and whip up support for family planning.¹⁴⁸ Radio – the communications technology of choice - was to 'do for development communication what hybrid seeds were doing for agriculture' by giving people the information they needed to be 'more hygienic, more productive...and more demographically responsible'.¹⁴⁹ Frank Wilder was even more ambitious, arguing that communications was going to be revolutionized by satellite television, which would be nation-wide, broadcasting the same message to everyone, in their own language. It was, he argued, the communications-technology equivalent of discovering a chemical that would render people sterile, reversible only by a pill given upon proof that a family had less than three children.¹⁵⁰

Wilder's argument about contraceptives and communications were part of a trend in the late 1960s and early 1970s sparked by disillusionment with the claims of vast social change

¹⁴⁶ S. Radhakrishnan, *Planned Parenthood*, pp.10-13

¹⁴⁷ Ibid

¹⁴⁸ Chandrasekhar also advocated completely non-technological approaches to the population problem, such as a "no-baby year" – a year of abstinence for all married couples, to coincide with the anniversary of Gandhi's birthday. 'Sexual Abstinence proposed in India' *The Washington Post*, October 21, 1968; 'India weighs a law to sterilize fathers of more than 2', *The New York Times*, June 19, 1967

¹⁴⁹ G.F Salkeld, 'Communicating Family Planning in India', *India International Centre Quarterly*, 8:3/4 (1981), pp.277 -278

¹⁵⁰ Frank Wilder, 'Major Considerations in the Application of Satellite Communications to India's Family Planning Programme' (1968), Ford Foundation, Unpublished Records, B18675/F3727

that had been made only four of five years previously.¹⁵¹ The seeming failure of efforts to change social norms had promoted a revival in the dream of the “ideal contraceptive” – as had been hoped for with the IUD, a simple, cheap, acceptable and “one-time” contraceptive could cut across the need to motivate people, and across the problems of social difference, as Unger notes, ‘technology promised to render the complexities of human behaviour irrelevant’.¹⁵² The need to cut across the problems of both motivation and administration were manifest in the rise of the vasectomy camps in the early 1970s, which eliminated the administrative hassle of the extension approach by centralizing resources, and undercut the aim of the approach by offering steep incentives.

However, the high technocratic rhetoric of family planners like Chandrasekhar and Wilder in India, and Paul Ehrlich and Melvin Ketchel internationally, remained for the most part purely rhetorical. Ehrlich and Ketchel were proposing involuntary interventions that did not yet exist.¹⁵³ Many of the ideas that were developed for the mass communication program relied on technological interventions that were unfeasible. While radio was to have transformed communications, very few of the radios distributed to the villages worked.¹⁵⁴ The audio-visual vans, which were to be deployed to show rural villagers the family planning videos developed by the Government and overseas were enthusiastically received, but there were only 140 “cinema vans” in India, and the 335 additional vans that had been promised would take years to arrive. Even when they had arrived, it would take the entire fleet of cinema vans eight years to visit every village once.¹⁵⁵ Likewise, Chandrasekhar’s proposal to sterilize all men with over three children, had it been implemented, would have impacted 40 million men, requiring 1000 surgeons conducting 20 operations per day for 8 years, with 3.5 million additional men added to the total each year.¹⁵⁶

Thus, even proposals that were technologically ‘possible’ would have been impractical, if not impossible, to actually implement. Furthermore, while the enthusiasm for these measures

¹⁵¹ See Bernard Berelson for an overview of involuntary (and voluntary) contraceptive technologies proposed during the late 1960s, as well as various measures to induce, convince or manipulate people into social change. Berelson, ‘Beyond Family Planning’, *Studies in Family Planning*, 1:38 (1969), pp.1-16

¹⁵² Corinna Unger, ‘Family Planning – A Rational Choice?’ in Heinrich Hartmann and Corinna Unger, *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century*, p.71

¹⁵³ Both proposed that Government’s should develop, and use, ‘fertility control agents’ that could be put into the water supply or a staple food that would allow the State to reduce total fertility ‘by up to 75%’. Bernard Berelson, ‘Beyond Family Planning’, p.2

¹⁵⁴ Sripathi Chandrasekhar, ‘How India Is Tackling Her Population Problem’, p.644

¹⁵⁵ Frank Wilder, D.K Tyagi, ‘India’s New Departures in Mass Motivation for Fertility Control’, p.777

¹⁵⁶ Bernard Berelson, ‘Beyond Family Planning’, p.4

ran high amongst some of India's family planners and among the international population control movement, they were politically problematic within India, as Chandrasekhar had himself discovered by 1970. Researchers working in and on India, such as Blame and Elder were also questioning the implementation of the program, and particularly the development of the mass camps. However, the largest indictment of the camps – and evidence for their lack of support as well as the inability of the Government, both Central and State, is demonstrated by the dramatic fall in 'acceptors' at the camps when incentive funding largely dried up in 1973-1974.¹⁵⁷ Even less immediately problematic suggestions such as raising the age of marriage and introducing incentives and disincentives were sources of political contestation in the Central government.¹⁵⁸ While raising the age of marriage had been envisioned as part of a larger process of social change and demographic change¹⁵⁹, implementation was again a severe setback. The problem, as Chandrasekhar explained it, was that while the government could legislate change, people in rural villages did not have birth certificates, so it was impossible to know how old they were.¹⁶⁰ The problem then, as he saw it, was the Government's ability to know facts with certainty about people, or people's ability to accurately know themselves, and so comply with the law.

An integral part of the Fourth Plan was the use of research to provide feedback for planners and an overview of progress. S.N Agarwala had argued in 1968 that research was needed on virtually every aspect of the demographic problem of fertility growth, and that policy-oriented research to guide policy-making was of the highest priority. Demographers, he argued, had an important role to play in providing 'relevant and reliable information' to policymakers. 'The future development of demography in India will largely depend on the readiness with which they [demographers] provide relevant and reliable demographic data to planners and policy-makers'.¹⁶¹ However, the ability of demographers to do this was being questioned by the 1970s. The majority of data that was being collected, and on the basis of which targets, estimates of cost-effectiveness and inputs for the plan, was from areas with 'better than average' administrative and medical infrastructure, and were not representative of

¹⁵⁷ Ian Dowbiggin, *The Sterilization Movement and Global Fertility*, loc. 2589

¹⁵⁸ Ibid

¹⁵⁹ Ashish Bose, 'Life Begins at 20', *Yojana*, 15 September (1968), pp.8-10

¹⁶⁰ The problem of knowing people's ages was a long-standing one, and demonstrates the conflict between the values of the investigator (or Census taker, as was also often the case) and of the person whose age was being requested. As Timothy Alborn and Saul Halfon explain, the calculation of age in the sense that the census-enumerator or investigator wanted – as a set number of years – made little sense to people who did not value, or calculate, age in the same way. Timothy Alborn, 'Age and Empire in the Indian Census, 1871-1931', *The Journal of Interdisciplinary History*, 30:1 (1999), pp.61-89; Saul Halfon, *Cairo Consensus*, pp.129-151

¹⁶¹ S.N Agarwala, 'Demography and Development', *Yojana*, 15 September (1968), pp.12-13

either worse-off districts or of the distinct regional challenges faced in particular areas.¹⁶² This was particularly problematic in the case of target-setting, which had been calculated on a per-head basis and did not account for variations in contraceptive acceptance, effectiveness, or continuation, and were 'so far above any possibility of achievement' that they had no credibility.¹⁶³

By 1972 it was being increasingly argued that the major projects of the Fourth Plan had failed. The infrastructure needed to develop the program has not been forthcoming, departmental co-operation was lacking, and overall progress had been negligible. Many questioned whether it was possible to transfer the agricultural model of 'the diffusion of innovations' to family planning, and criticized an 'overreliance on health education strategies' derived from public health and medicine, rather than relying on what was known about market research and advertising.¹⁶⁴ These criticisms would seem to largely overlook the praise heaped on the mass communications program by Wilder himself for doing exactly this and ignoring the advice of advertising experts, but nevertheless appeared to ring-true with the international community. Emerson Foote, a USAID consultant and ex-head of two of the world's largest advertising firms - Foote, Cone and Belding and McCann-Erikson - had advised that without a complete restructuring of the mass communications project to bring it under the control of the Family Planning department¹⁶⁵, the program was likely to fail.¹⁶⁶ He had further criticised the program, arguing that it was a case of all "warm up", with no effort to actually 'sell' family planning. "The plan is the thing", he had advised, and without a solid plan, little would be achieved.¹⁶⁷

By the early 1970s many believed that little had been achieved - 'the programme had reached a cold dead end'.¹⁶⁸ In a state of 'financial and philosophical disarray', the program had been subject to cut budgets, which had limited the popularity of the sterilization camps, leaving the Nirodh project as the 'only successful element of the plan'.¹⁶⁹ Differential fertility, particularly between Hindu and Muslim communities, was a source of rising tension, and while Chandrasekhar had been outspoken about population and family planning during his time in

¹⁶² P.M Blame, 'Implications of Selective Feedback in Aspects of Family Planning Research for Policy-Makers in India', pp.437-440

¹⁶³ Ibid, p.440, citation 12

¹⁶⁴ Manon Parry, *Broadcasting Birth Control*, p.88

¹⁶⁵ Ultimate control over communications and broadcasting lay with the Ministry of Information and Broadcasting, not with the Department of Family Planning.

¹⁶⁶ Emerson Foote, 'Observations and Recommendations on Mass Communication in Family Planning' (1969), S5/SSH/B52/F22 [UofT]

¹⁶⁷ Ibid

¹⁶⁸ Mohan Rao, *From Population Control to Reproductive Health*, p.42

¹⁶⁹ R.H Cassen, *India: Population, Economy, Society* (London, 1978), p.173

office, many of his colleagues in Government did not share this tendency.¹⁷⁰ The relationship between the family planning program and American technical advisors was also breaking down. “Washington Syndrome”, the belief that ‘money and technology can solve India’s problems’, had been a major factor in the disintegrating relationship, compounded by international political tensions.¹⁷¹ ‘There does seem to be a feeling in the air’, noted Bernard Berelson, ‘that the time for foreign assistance is over or at least running out’.¹⁷² By 1971, Ford’s relationship with the Department of Family Planning had officially ended, and by New Year’s Day, 1973 the doors to USAID’s Delhi office were closed. The turn towards social science and technology that was at its apex during Chandrasekhar’s stint as Minister of Health and Family Planning, and during the Fourth Plan period, had shifted demographic thought towards the role of individuals as well as the aggregated whole, and envisioned technological solutions to the population problem. Policies designed to change individual behaviour, such as strategies to convince people to accept the small family norm, were attempting a society-wide transformation by attempting to change individual - and couple-level attitudes and practices. Thus, Chandrasekhar’s “total man” needed both to accept and participate in society-wide changes, but through the modification of individual patterns of behaviour. This was a stark change from the arguments of the 1950s, which had counted on the wider forces of economic development to gradually lead to changes that would lower fertility.

However, the failure of many of these arguments to turn into policies that could be successfully implemented – and the rejection not only of Chandrasekhar but of technical aid for family planning by the end of the 1970s - calls into question the technocratic claims made for the period. While some demographers and population experts hardened their stance towards technology in the face of program difficulties, arguing that greater intervention was required, others began to question the basis on family planning and contraceptive arguments were made. Furthermore, arguments about the ‘technological solution’ to the population problem were being made alongside those championing the rights of individuals to control their own fertility, which while not anti-technocratic per se, was nevertheless an alternative interpretation and use of contraceptive technology in discussions on fertility. As Alison Bashford has shown, arguments about voluntarism, freedom, and the ‘right to choose’ were an integral part of the conceptual framework of the ‘population establishment’, arguments made alongside but never subsumed by coercion and other forms of reproductive control.¹⁷³

¹⁷⁰ Ibid, p.174

¹⁷¹ Meredith Minkler, ‘Consultants or Colleagues: The Role of US Population Advisors in India’ *Population and Development Review* 3:4 (1977), p.413

¹⁷² Kathleen D. McCarthy, ‘The Ford Foundation’s Population Programs in India, Pakistan and Bangladesh, 1959-1981’, p.75

¹⁷³ Alison Bashford, *Global Population*, p.344

The project of social change and social engineering was being articulated in India in the context of larger arguments about the role of population and fertility in the context of Indian democracy. Chandrasekhar had long been placing the need for birth control 'no matter the cost' alongside strident defences of democratic policy-making. As modernization theory came under increased fire from critics in the 1960s and 1970s, the relationship between democracy and population was also revisited. 'Democracy in Asia faces the task of bettering the lot of the common man'¹⁷⁴ – but 'betterment' required economic growth which, it was argued, relied on controlling population growth, the most effective means of which was by controlling fertility. The technocratic policies and time-bound targets, reinforced by incentive programs were, as Mohan Rao has argued (and as many argued at the time) predicated in part on the belief that 'family planning was a necessary outcome of contraceptive technology alone'.¹⁷⁵ However, the reliance on contraceptive technology, and on targets and incentives, was part of a larger tradition of thought concerned with overpopulation, development and democracy in India that – as Chandrasekhar shows – frequently perceived the imperative need to lower birth rates as the means secure the rights and democratic principles that were the ultimate aim of development. By the beginning of the 1970s, not only were these demographic and policy arguments being questioned, but the idea of overpopulation that they stood on was also being re-considered, and would be ultimately rejected at the 1974 World Population Conference.

¹⁷⁴ World Brotherhood All India Committee: Report of the Committee on Politics (1960), Career Files, Report, B53/F26 [UofT], p. 2

¹⁷⁵ Mohan Rao, *From Population Control to Reproductive Health*, p.37

CHAPTER SIX: CHALLENGING THE POPULATION PROBLEM IN THE EARLY 1970S

In the late 1960s and early 1970s population control, family planning and the population problem itself again became the focus of heated debates. Population experts, family planners, national Governments and international organizations clashed over what the population problem was and how it should be tackled. These debates culminated in the mid-1970s, reaching their pinnacle at the 1974 World Population Conference. This chapter argues that in India debates about the population problem circled a particular set of questions: the relationship between population growth and development, and the relationship between individuals and society. Against the backdrop of challenges to development and modernization occurring around the world, Indian intellectuals, social scientists and policy-makers questioned the very basis of population control itself, reviving arguments about the relationship between population growth, economic growth and state planning first made in the 1940s and early 1950s. These debates had a lasting impact on the international population establishment, reaffirming the importance of national sovereignty, undermining the scientific basis of overpopulation, and envisioning alternatives to population control policy.

Historians looking to population debates and experts in the West have predominantly discussed the late 1960s and early 1970s as an era in which the population establishment found itself challenged on many fronts.¹ John Caldwell and Pat Caldwell outline the contours of this period, arguing that the 'crisis of confidence in technical aid', the decline of American liberalism in response to the Vietnam war and emerging Third World challenges to development ideologies signalled the end of era, consolidated by growing conservatism in America.² Thomas Robertson, discussing the relationship between the environmental movement and population growth in 1970s America, argues that high profile environmental debates on population highlighted broader shifts around Malthusian understandings of the population problem.³

¹ See for example, John Caldwell, Pat Caldwell, *Limiting Population Growth and the Ford Foundation Contribution*; Oscar Harkavy, *Curbing Population Growth*, ch.5-6; Dennis Hodgson, 'Orthodoxy and Revisionism in American Demography', pp.555-557; S. Sinding, 'The Great Population Debates: How Relevant Are They for the 21st Century?' *American Journal of Public Health*, 90: 12 (2000), pp.1841-1845; Matthew Connelly, *Fatal Misconception*, ch.8

² John Caldwell, Pat Caldwell, *Limiting Population Growth and the Ford Foundation Contribution*, pp.129-135

³ Thomas Robertson, 'Revisiting the Early 1970s Commoner-Ehrlich Debate About Population and Environment' in Heinrich Hartmann, Corinna Unger (eds.) *A World of Populations: Transnational Perspectives on Demography in the Twentieth Century* (New York, 2014)

Most histories of population in India look to the relationship between India and international population controllers in the early-to-mid 1970s, emphasizing the financial aspect of this relationship and its impact on population policy-making. Matthew Connelly argues that India in the early 1970s, while initially rejecting foreign monetary support for family planning, ultimately capitulated establishing a relationship between donors and the Indian government that 'reinforced a tendency to focus only on reducing fertility'.⁴ Rebecca Williams, in her account of population control in the Emergency, places greater emphasis on the role of the Indian state in the 1970s. She argues that by 1958, with the publication of Coale and Hoover's seminal study, *Population Growth and Economic Development*, a consensus had been established that remained unshaken until after the Emergency. The only deviation from this consensus, she argues, was the statement 'development is the best contraceptive' made by Karan Singh at the 1974 World Population Conference – a claim made as part of wider Cold War politics with no domestic impact within India.⁵

This chapter argues that the late 1960s and early 1970s, far from being the continuation of an established and largely uncritical consensus, saw the rise of a wide array of debates about family planning, population control and the population problem. In India, population experts and policy-makers were engaged in a wide-ranging argument over nearly all aspects of the family planning programme, ranging from the administration of population policy, to the validity of empirical data, to the ideology of population control and overpopulation. They raised concerns about mass vasectomy camps, engaged in debates over different population policies (such as camps versus extension education), and – for a brief time – saw the 'integration approach' of the Fifth Plan as a new and viable alternative to older policy approaches. Internationally, the debates within India also had a wide impact, helping fracture the broad consensus within American demography, to raise the issue of national sovereignty, and to challenge the orthodoxy of family planning within the demographic profession.

POPULATION AND POLITICS IN INDIA

When Chandrasekhar stepped down as Minister of Health and Family Planning in 1970, it was into a changing landscape – the late 1960s and early 1970s, like the late 1940s and early 1950s, were a tempestuous period in Indian and international politics, from which family planning and demography were not immune. The late 1960s, Ramachandra Guha argues, were a time of 'crisis and conflict, of resentment among lines of class, ethnicity and region, and of a centre that barely seemed to hold'.⁶ Chandrasekhar's tenure as Minister had helped to stoke these fires – in

⁴ Matthew Connelly, *Fatal Misconception*, loc.3908

⁵ Rebecca Williams, 'Storming the Citadels of Poverty', p.482

⁶ Ramachandra Guha, *India After Gandhi*, p.433

particular, fears over Hindu-Muslim fertility differentials were rising.⁷ However, by 1970, there was hope that the Green Revolution had been a success and that the food problem – one of the main drivers of the population problem – had been solved.⁸ The 1971 elections, won by Indira Gandhi and the Congress Party, had been based on a campaign to end poverty itself and had resulted in a landslide victory: 352 of 518 seats in Parliament had been secured.⁹ By ‘speaking socialism’, Indira Gandhi had brought the ‘rhetoric of economic populism to previously unobtained heights’, and she had reaped the rewards.¹⁰ Nationalizing the banks, insurance companies and coal industries masked the lack of substantial structural reforms in land ownership and the failure of the State to increase its ‘productive capacities’.¹¹ Nevertheless, as Francine Frankel argues, the period was one of ‘Mrs. Gandhi’s fantastic victory’ – and the election results were taken as a sign of a ‘new consciousness of the people’ and as ‘a sanction for the ‘social transformation of India’.¹²

Family planning was firmly tied to the ‘social transformation’ in the Fourth Plan (1969-1974), which explicitly linked family planning to development, arguing that it was the ‘kingpin of the Plan’ and that ‘limitation of the family’ was an ‘essential and inescapable ingredient of development’.¹³ The Fourth Plan had further ramped up the emphasis on controlling population growth that had been growing through each of the Plan Periods. ‘Family Planning finds its place in the plan a programme of highest priority. Its crucial importance is reflected in the widespread public interest that has been aroused no less than in the magnitude of the effort, organization and finance which the Government is devoting to the programme’.¹⁴ The Plan also proposed a long-term perspective, arguing that population growth would fall to 1.7% by 1980-81, which would require a decrease in the birth rate from 39 per thousand to 26 per thousand. This could be achieved, the Plan claimed, ‘on the basis of active Family Planning Programmes under way’.¹⁵ However, it was necessary to achieve a faster rate of decline in order to achieve ‘the degree of acceleration in improvement of living standards implied in our projection for the

⁷ ‘Fear of Becoming a Minority: Family Planning Opposed’, *The Times of India*, October 15, (1968); Jai Nimbkar, ‘The Anti-Family Planning Movement’ *The Times of India*, July 23 (1971); ‘Holy War on the Red Triangle’, *The Times of India*, November 5, (1972)

⁸ Ramachandra Guha, *India After Gandhi*, p.433

⁹ Ibid, p.447

¹⁰ Sunil Khilnani, *The Idea of India*, pp.91-92

¹¹ Ibid, p.92

¹² Francine Frankel, *India’s Political Economy 1947-2004: The Gradual Revolution* (Second Edition, New Delhi, 2004), p.460

¹³ J.P Gupta, N.K Sinha, Amita Bardhan (eds.), *Evolution of Family Welfare Programme in India*, Vol. 1, p.33

¹⁴ Ibid, p.33

¹⁵ Ibid

period'.¹⁶ Driving the increased emphasis on family planning was the fear that, rather than having been solved by the efforts of the previous Plan periods, the population problem was getting worse – the rate of growth had remained largely unchanged, and population continued to present 'a very serious challenge', and required 'a strong purposeful Government policy, supported by an effective programme and adequate resources of finance, men and materials'.¹⁷

In 1970, D. Banerji, reviewing the family planning program, offered an unqualified critique: 'Has there been a sound and coherent policy, based on scientific data, to ensure that, with the passage of time, India's Family Planning Programme gains enough momentum, so that the declared goal of bringing down the birth rate to 23 is achieved by 1978-79? The answer, unfortunately, has to be a clear 'no'.¹⁸ The largest and most serious problem was that Indian planners had 'over-reacted to the population bogey', and in so doing had 'grossly neglected certain key social and economic sectors which are vitally important for the promotion of a small family norm'.¹⁹ Population growth presented a problem for economic growth, he conceded, but the far more serious problem was the use of the 'population bogey' by the Government as a cover for political and developmental failures – particularly to address social and economic problems. This had been exacerbated by international concern for India's population problem, which had, he argued, come in very handy 'to perpetuate this bogey'.²⁰ He drew attention to the differences between family planning and family limitation. Family limitation, he argued, referred to the 'quantitative aspect', while family planning referred to the qualitative one.²¹ In the context of the 'overriding urgency for bringing about family limitation', however, the terms were being used interchangeably.²²

Elaborating on Myrdal's critique, Banerji questioned whether the demographic goals that had been set for the family planning programme were achievable, particularly in light of claims about the possibility of instilling the small family norm amongst the majority of Indian couples. Contrary to the expressed optimism, Banerji argued that 'the conditions in South Asian villages are vastly less favourable for awakening a desire to limit the number of children strong enough to lead to effective and sustained birth control'.²³ The demographic achievements of the program by 1970 were disappointing – as much as 62.5% of the vasectomies were performed were on men with older wives, men who were unmarried, or widowers, and would have,

¹⁶ Ibid

¹⁷ Mohan Rao, *From Population Control to Reproductive Health*, p.38

¹⁸ Ibid, p.63

¹⁹ Ibid

²⁰ D. Banerji, *Family Planning in India: A Perspective* (New Delhi, 1970), p.8

²¹ Ibid

²² Ibid

²³ Ibid

Banerji argued, 'no demographic impact whatsoever'.²⁴ Community motivation formed the basis of the program, but its meaning had become diluted, and its effectiveness had been vastly overestimated. Furthermore, in what was 'perhaps the greatest mistake in the formulation of the program', the resistance of the community to family planning and the small family norm had been grossly underestimated.²⁵ Motivation was not, Banerji stressed, a 'magic wand' that could be waved over a village to inculcate the small family norm and make people accept family planning. Banerji pointed to the task that 'motivators' – typically unemployed urban youths who had 'somehow graduated from college' were being asked to perform. Sent to learn from western textbooks and to pick up the 'gimmicks and tricks of his trade', motivators were then expected to organize extension work for up to 30,000 people, in 160 villages.²⁶ They were to 'identify and train 'local leaders'', and to work with them to organize 'group discussion' and to guide the family planning workers who were as 'inadequately educated, ill-trained, ill-motivated, and ill-supported as himself'.²⁷ The ultimate expectation was that these motivators would find a way to 'kindle a virtual social and cultural revolution' among people who 'have a monthly per capita income of Rs.19 or below'.²⁸

The need to bridge the gap between 'desire and fulfilment' of the small family, and the need to 'actually try' extension work had been noted by several experts – including from the Ford Foundation - which begged the question: what had the programme with the 'tens of thousands of workers' and 'hundreds of social scientists and extension educators' actually been doing?²⁹ The indications from the limited feedback about the programme suggested that the answer was very little – utilization of services was so low that existing institutions were operating at less than 10% of their total capacity. The average IUCD mobile unit performed only 13 insertions in 1968-1969.³⁰ Family welfare centres performed 4 IUCD insertions and referred fewer than 7 people for sterilization per month.³¹ Furthermore, Banerji argued, the family planning programme ought to have generated not only an effective evaluation mechanism but to have led to a virtual "renaissance" in research for 'policy-formation, programme planning and programme implementation and evaluation'.³² However, the "renaissance" was still awaited. Instead, one kind of research – communication-action-research - had 'gained importance because it happened to be in tune with the research background of

²⁴ Ibid, p.35

²⁵ Ibid, p.31

²⁶ Ibid, p.32

²⁷ Ibid, p.32

²⁸ Ibid, p.33

²⁹ Ibid, p.35

³⁰ Ibid, p.36

³¹ Ibid, p.36

³² Ibid, p.42

foreign consultants'.³³ As a method, he noted, it had failed everywhere it had been applied – in agriculture, in environmental sanitation, and in family planning.³⁴

Looking ahead to the 1970s, Banerji remained pessimistic. The family planning programme was not the only development programme to have largely failed – community development, panchayti raj, the co-operative movement – all of these and more had not produced the desired results. Each programme shared a common flaw: they were poorly planned, lacking in scientific approach and hampered by the 'wasteful, obstructive, non-innovative and rigidly hierarchical nature of the operational set up' which, alongside an 'archaic and out-dated approach to management', meant that programmes were likely to continue on a downwards, rather than upwards trend.³⁵ These problems would be further exacerbated by the growing gulf between the 'haves' and the 'have not's' he argued. The key question, as a result, was 'whether this type of development, where certain basic shortcomings in the approach led to such grossly inadequate utilization of resources and where the richer, the more privileged and the more articulate get a lion's share of the fruits of investment efforts, be allowed to go in in the coming ten years?'³⁶ The answer, he predicted, would rest on whether or not family planning could actually result in 'a quick demographic transition'. So far, that seemed unlikely: the coming decade would see 'massive social and political changes in the country'.³⁷ There would be a rejection of the 'colonial and middle class values' that dominated India's social and economic activities, replaced instead by a 'genuine concern for the poor'.³⁸ This would manifest as land reform, education, greater access to health services and water supply.³⁹ Accompanying these changes would be a new style of administration and planning, more heavily reliant on technocrats for 'policy formulation, planning, implementation and evaluation of those social programmes which need specialized competence'.⁴⁰ Even generalist administrators would develop 'strong scientific overtones' and an 'experimental attitude', taking advantage of techniques such as 'operational research, system analysis and work study' to replace committees and other, older, styles of decision-making.⁴¹

These changes would be supported by 'mounting social pressure and increasing political commitment towards attainment of the declared social and economic objectives',

³³ Ibid, p.43

³⁴ Ibid, p.43

³⁵ Ibid, p.72

³⁶ Ibid, p.74

³⁷ Ibid, p.76

³⁸ Ibid

³⁹ Ibid

⁴⁰ Ibid, p.77

⁴¹ Ibid

which, alongside the 'reinvigoration of the planning and administrative machineries' would considerably accelerate the pace of social and economic development.⁴² Crucially, 'as a direct consequence of the change in the value system of the political leaders, the planners, the administrators and the specialists and consultants', efforts would made to be far more effective to implement development programmes.⁴³ Secondly, the adoption of a 'scientific approach to organization and management' would result in a far more effective use of resources.⁴⁴ The practice of offering incentives and of 'motivating' people through canvassers would be abandoned, Banerji predicted, by the end of the decade – and while the results of the programme would not be felt immediately, by the 1980s they would begin to be seen.⁴⁵

Banerji's critique had largely been aimed at the failure of development projects undertaken by the Indian state. However, in 1972, it appeared briefly as though this could change. While campaigning for the elections to the state legislatures, Indira Gandhi had again emphasized the need for a strong, stable Government in both the centre and in the states, as well as the need to focus on the 'war against poverty'.⁴⁶ She emphasized this with 'promises to improve the income of the masses of the rural poor' through legislation to lower limits on landownership as well as calling for further agrarian reforms.⁴⁷ The election was a 'massive victory' for the Congress party.⁴⁸ However, this victory highlights what Frankel refers to as a 'paradox of India's political development' – it was one of the most favourable moments for the realization of the Gandhian and Nehruvian 'vision of social transformation through democratic and constitutional methods' – widespread mass support, a Congress majority in the centre and in the states, the 'elimination of virtually all constitutional impediments to the redistribution of property' – all these factors made it seem as though it were possible to being to fulfil 'Nehru's strategy for democratic social transformation'.⁴⁹ As Frankel shows, this was not to be; the early 1970s instead ushered in 'the end of Nehru's democratic design for the creation of a socialist pattern of society'.⁵⁰ Rather than engaging the reorganization needed to implement the promised social and economic reforms, Congress found itself 'immobilized by ideological cleavages'.⁵¹

⁴² Ibid

⁴³ Ibid, pp.81-82

⁴⁴ Ibid, p.81

⁴⁵ Ibid, p.92

⁴⁶ Francine Frankel, *India's Political Economy*, p.476

⁴⁷ Ibid

⁴⁸ Ibid, p.477

⁴⁹ Ibid, p.478

⁵⁰ Ibid, p.479

⁵¹ Ibid

THE IDEOLOGY OF POPULATION CONTROL

In many ways, the changes and challenges to demography, family planning and population policymaking that emerged over the late 1960s and early 1970s reflected broader anxieties about social change and the proper role of the state in shaping it. Demography and the social sciences, which promised to scientifically measure and chart social change were being increasingly challenged in this regard, particularly as population policy, social science and family planning had moved explicitly towards generating social change. Reconciling the desires of the individual with the needs of the nation, and the need for family planning to be recognized as one aspect of broader policies of social and economic development shaped debate on population since the late 1960s.

Kingsley Davis' highly influential 1967 article on population policy, 'Population Policy: Will Current Programmes Succeed' made a set of arguments that had a long reach and a lasting impact on population control and family planning. Davis presented a blistering critique of family planning, and of the population policies that had been adopted around the world by the late 1960s. The main problem, Davis argued, was the disconnect between the logic of family planning – which by definition concerned only individuals – and the needs of national planning. 'Obviously, couples do not plan the growth of national income or the highway network. There is no reason to expect that millions of decisions about family size made by couples...will automatically control population for the benefit of society'.⁵² Fundamentally, Davis argued, population policies were not about giving individuals the right to have as many children as they wanted. They were instead about giving societies the ability regulate the number of people that were needed. The society, and not the individual couple, needed to be placed paramount.

At the Ford Foundation, John C. Cool, reacting to the deteriorating relationship between the Foundation and the Indian Government, which by 1970 was under heavy strain,⁵³ argued strongly for the need to look 'beyond technical assistance'.⁵⁴ The managerial and technical competence needed to 'upgrade the family planning program' was already present within India, which meant the basic rationale for providing technical aid – to develop skills and resources not otherwise available – no longer held.⁵⁵ Cool took aim at the arrogance and pretention that had characterised demographic research and family planning advice during the previous decade. 'Unlike the field of plant breeding or small-pox eradication', he argued, 'outsiders don't have a

⁵² Ibid

⁵³ Meredith Minkler, 'Consultants or Colleagues', p.413

⁵⁴ John C. Cool, 'Beyond Technical Assistance', December 1970, Ford Foundation Records, Unpublished Reports, F17991 [RAC], p.1

⁵⁵ Ibid, pp.2-5

body of tested empirical evidence or doctrine on which to base their advice'.⁵⁶ Instead, they were still uncertain, and the key variables that had resulted in changing attitudes and behaviours were still unknown. Given this, it was unclear if these factors could be isolated from 'the more comprehensive process called "modernization"'.⁵⁷ What was needed instead was a 'significant and planned change in the nature of the Foundation's role' that would 'take cognizance of the altered circumstances of the 1970s including, most importantly, the changing realities of India'.⁵⁸ Ultimately, Cool argued, India's population problem was, however much it might be important to the 'world community', the responsibility of India's leaders.⁵⁹ 'Let me be clear', Cool concluded, 'I believe the Foundation should be willing to abdicate its authority with regard to the allocation of resources in the family planning field'. This authority, he continued, should belong to the Indian government.⁶⁰ Making these changes could provide a way forward for the Foundation - 'It is just possible that a pattern could be evolved which would have significance, not only in India but as a model - beyond technical assistance - for the 1970s'.⁶¹

Around the world, Bernard Berelson observed, there was a growing concern over population policy.⁶² It seemed for Berelson that the current situation was defined as much by politics and ideology as by data and territory. 'To someone coming into the field', he observed, 'it is impressive...how population policies are tied to social or political ideologies'.⁶³ From Plato to Mercantilists, from Malthus to Mill, and more recently, from Marx to Sanger, the politics and ideology of population was unavoidable. 'Population views', he noted, 'are strongly felt precisely because they are tied to deeper intellectual or political positions' in a relationship that was 'reciprocally sustaining' and provided an air of certainty that often, he admitted, stepped beyond the bounds of both evidence and rationality.⁶⁴

By the 1970s, the political, social, cultural and policy issues connected to population and family planning seemed to be increasingly unclear. The certainties that had dominated population policymaking and the provision of advice and research in family planning had evaporated. The point remained, he argued, that 'scientific facts', once marshalled, would be unlikely to provide a single strong answer to all aspects of the population problem and of policy. Finally, he concluded, there was a need to recognize the role of the democratic process in

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ Ibid, p.7

⁵⁹ Ibid, p.8

⁶⁰ Ibid, p.14

⁶¹ Ibid, p.15

⁶² Bernard Berelson, 'Population Policy: Personal Notes' *Population Studies* 25:2 (1971), p.174

⁶³ Ibid, p.175

⁶⁴ Ibid, p.175

determining how population problems would be addressed – ‘it is the task of the student of population not to select the ends, or the trade-offs among them, but rather to inform the selection, by government and citizenry, through clarifying the contribution of different demographic means’.⁶⁵

In India, ‘dissenting demographers’ had also begun to question some of the assumptions being made about demography, family planning and population policy in India during the 1960s.⁶⁶ Two women-demographers, Malini Kakal, senior research officer at the DTRC, and Kumudini Dandekar, who held a senior position at the Gokhale Institute, had both questioned the policies suggesting raising the age of marriage which had been argued for during Chandrasekhar’s stint as Minister, particularly by S.N. Agarwala. Both Kakal and Dandekar argued that the reduction in birth rates that accompanied a rising age of marriage were the results of ‘changes in the outlook of society towards the role of women’, and that legislation without substantive social and cultural change was unlikely to have a significant impact.⁶⁷ This was part of a shift towards what Rajani Bhatia and Ashwini Tambe term ‘social change activism’, which often ran counter to the more widespread numerical and statistical logic of population control.⁶⁸ The resistance of demographers like Kakal and Dandekar to attempts to legislate social change for the purposes of population growth is, they argue, indicative of the ‘growing conflict between those who pursued a numbers-based population control agenda and those who centered the human rights and needs of women’.⁶⁹ This conflict played out during the first half of the 1970s, as demographers, population experts and family planning workers challenged many of the assumptions underlying population policy.

By 1971, it was clear to both the government and to population experts that the population programme had not produced the expected results. The outcome was to spread doubt about the basis of the population policy itself. To this end, the Central Ministry of Health and Family Planning threw open the subject of population policy to public discussion, ‘with a view to identifying the problems in their contemporary context...to find out the reaction of knowledgeable people to the *raison d’être* of the policy itself’.⁷⁰ Three seminars were held, funded by the Ministry and attended by a wide range of intellectuals, policy-makers and family planning workers. The sessions were shaped by the growing fears over the ‘population explosion’. However, while acknowledging that the population explosion ‘lent seriousness’ to

⁶⁵ Ibid, p.182

⁶⁶ Rajani Bhatia, Ashwini Tambe ‘Raising the age of marriage in 1970s India: demographers, despots and feminists’ *Women’s Studies International Forum* 44 (2014), p.93

⁶⁷ Ibid, p.93

⁶⁸ Ibid

⁶⁹ Ibid

⁷⁰ G. Mukharji, ‘Foreword’ in V. Jagannadham (ed), *Family Planning in India: Policy and Administration* (New Delhi, 1973), p.vii

the population problem, there were strong arguments being made to counter it. 'Population has to be looked at as one facet – though very significant – of the total picture...the density of the population, rather than the magnitude of the total population, is perhaps a better indicator'.⁷¹ Drawing attention towards density revealed an important fact: while in absolute numbers, India's population was second only to China's, in terms of density, it was far lower – below countries like Belgium, the United Kingdom, West Germany and the Netherlands – none of which were said to have 'population problems'.⁷² This innocuous seeming comparison hid a wealth of ideological arguments that emerged over the course of the three seminars. The guiding concern was not only what was wrong with population policy, but whether India could even be said to have one.

THE THREE SEMINARS

The Minister of State in Health and Family Planning, D.P Chattopadhyaya had requested that the first seminar 'tell the Government as to what they thought ought to be done in the field of family planning and population control'.⁷³ Chattopadhyaya argued that general awareness of family planning had already been widely established and that 'social acceptability' had been created. What was needed, he went on, was to know if it was possible to find 'new approaches in the field of motivation', and to know how to 'bridge the gap between wide awareness but low levels of acceptance'.⁷⁴ He made a 'forceful plea' for modernization 'in all directions which could lead to the acceptance of the small family norm...the small family norm has to be presented as part of the total development package in political, social and economic terms'.⁷⁵ What the Minister received was broad criticism of the basic assumptions and administration of the program, ranging from its understanding of the relationship between the individual and the state, and between population growth and development, to the problems associated with administering family planning as a Central-Government run 'administrative experiment'.

One of the most divisive discussions centred on the relationship between the State and citizens with respect to family planning. Asok Mitra and Ashish Bose had both presented papers touching on this topic. Mitra argued that bridging national and personal goals was one of the main problems facing the family planners, and was a problem that had 'plagued' family planning communicators 'in all countries in recent years'.⁷⁶ The cafeteria approach had been

⁷¹ Ibid

⁷² Ibid

⁷³ V.Jagannadham, 'Summary of the Proceedings of the First Seminar', in V. Jagannadham (ed), *Family Planning in India: Policy and Administration*, p.140

⁷⁴ Ibid

⁷⁵ Ibid

⁷⁶ Asok Mitra 'Family Planning Policy – A Retrospect and Prospect' in V. Jagannadham (ed), *Family Planning in India: Policy and Administration*, p.34

promoted as one such bridging solution, but had largely floundered owing to the Government's insistence on 'one or other particular method'.⁷⁷ There was a further aspect to be considered as well. While the reduction of birth rates as a national goal and family planning as a personal goal were often presented as a dichotomy, this obscured further complexities in the relationship between the State and the individual. 'What is not often realized or openly acknowledged', Mitra argued, was that at the sub-national, regional or local level, population size determined financial and political benefits and allocations. This had the effect, he explained, of 'building-in' and perpetuating 'stubborn areas of conflict between national and sub-national interests over population growth'.⁷⁸ The outcome was that attaining the national goal would most likely therefore rely on people attaining their individual goals and bypassing the jockeying of sub-national and regional interests.⁷⁹

Ashish Bose hit hard at the problems of family planning administration. The slogan 'garibi hatao' (quit poverty) had rallied the people, and needed to be backed up with positive action rather than 'negative slogans'.⁸⁰ This meant turning away from Western style advertising and mass communication – 'One of the myths of family planning is that reproductive behaviour in a country like India can be changed by propaganda and posters', he argued. Another bastion of family planning – the clinic – also had to go, so that the program could be made 'broad based'. Rather than being linked to health, the program, as Asok Mitra also argued, had to be linked to social security.⁸¹ Bose's main criticism was for the divergence between the philosophy of family planning presented in the four Five Year Plans, and how family planning had been implemented. In the Five Year Plans, family planning had been formulated as an integral part of development planning, but in policy formulation and implementation, it had been linked to health. This divergence, and in particular the linkage of family planning to health, had 'far reaching implications', particularly for programme implementation – by 'hitching the family planning wagon to the passenger train of public health, and not the express train of development' the plan had found itself struggling.⁸² The provision of full funding by the Central government meant not enthusiasm was required from the States, the Ministry of Health was weak, and poor infrastructure, and the States were not granted enough flexibility to administer the programme according to their local conditions.⁸³ Beyond these administrative problems, Bose argued that the family planning programme should directly appeal to people's economic

⁷⁷ Ibid

⁷⁸ Ibid, p.36

⁷⁹ Ibid, p.37

⁸⁰ Ashish Bose, 'Some Emerging Issues in Family Planning Administration' in V. Jagannadham (ed), *Family Planning in India: Policy and Administration*, p.41

⁸¹ Ibid

⁸² Ibid, p.44

⁸³ Ibid, pp.45-47

sensibilities, bypassing what he termed the ‘metaphysics’ of the small family, happy family approach. Instead of appealing to people’s happiness, he advocated for economic straight-talking: ‘why can’t we tell the masses that there are too many people on the land, that the burden of dependency is increasing, that there is growing unemployment and that there are not enough schools, houses and hospitals?’⁸⁴

Family planning administration and the relationship between the state and individuals generated heated discussion in the first seminar. Dubbed ‘the problem of numbers’, participants questioned the inter-relationship between population growth and growth in goods and services, arguing that the traditional fears about population growth ‘outstripping’ resources appeared to have been largely laid to rest by scientific and technological developments.⁸⁵ This critique was extended into broader questions about the ‘new respectability of Malthusianism’.⁸⁶ Many argued that the emphasis placed on family planning had been to cover the ‘deficiencies or failures of the Government’s development plans’.⁸⁷ In response, attendees had argued that population growth did not present an insurmountable problem, as each “burdensome mouth” was ‘accompanied by two hands and a brain’.⁸⁸ This was contested by those who argued that, while the family planning programme was not effectively administered, the problem remained one of growth and absolute numbers, which were going to outpace resources. What was needed instead was for family planning programmes to be pursued even more vigorously, ‘in their purely physical form’.⁸⁹

In the discussions at the third seminar, M.N Madhok neatly summed up the general tone of the three seminars, noting that ‘it was true that family planning programme had of course some political bearing since democracy, after all, was a game of numbers’.⁹⁰ The need for family planning policy to take into account the processes of democracy had been emphasized in the first seminar, where the need for wider public debate and approval through the legislature of ‘the whole range of population policy’ had been emphasised.⁹¹ The need to turn away from national aggregates, and instead to take a ‘welfare orientation’ that would be meaning to individuals was similarly advocated, alongside questions about where (in rural or urban areas)

⁸⁴ Ibid, p.52

⁸⁵ Ibid, p.141

⁸⁶ Ibid

⁸⁷ Ibid

⁸⁸ Ibid

⁸⁹ Ibid, p.142

⁹⁰ V. Jagannadham, ‘Working Paper’ in V. Jagannadham, (ed), *Family Planning in India: Policy and Administration*, p.259

⁹¹ V. Jagannadham, ‘Summary of the Proceedings of the First Seminar’, in V. Jagannadham (ed), *Family Planning in India: Policy and Administration*, p.144

family planning programmes should be based.⁹² The second seminar had elaborated on these points, and underlined the problems many had with the view that a 'global view of reduction in numbers' could serve as the basis for increased per capita income, which was 'neither logical or convincing'.⁹³ The mass camp approach also came under criticism, with the penal measures imposed by the Government and the 'intensive Government action' regarded as infringing on individual decisions about fertility.⁹⁴ There were, however, opposing views as well. Some claimed that the results achieved by the programme so far were the best that could be expected so long as the programme continued to 'work within the constitutional framework', and adopted 'democratic methods for dealing with the problem'.⁹⁵

Reviewing the reports of the seminars, scholars remarked on the extent to which many of the criticism derived from Banerji's essay criticising family planning and population policies in India. Banerji's essay, which had been first written in 1969 and was rejected by the *Indian Journal of Public Administrator* for being overtly critical of foreign experts and 'top executives', appeared to have found its intellectual niche. The 'remarkable' adoption of so many of Banerji's ideas opened up new questions in and of itself – as Hans Schenk, based in the University of Amsterdam's Institute of Planning and Demography asked, 'Does this mean that something has started to happen with regard to family planning in India?'⁹⁶

RETURNING TO THE FIELD: NEW PROBLEMS WITH OLD RESEARCH

That research was politically useful, and that it could help 'lead to action' had been one of the main appeals of the KAP surveys conducted during the 1950s and 1960s. As 'techniques of persuasion' as well as 'avenues to action', population experts argued that KAP surveys and research should be conducted at the beginning of every national programme of fertility control, the better to demonstrate to the elite that there was widespread support for family planning programmes.⁹⁷ The dominant ideas driving population policy-making in the late 1960s and early 1970s were that population policy was an integral part of economic policy, and that policy-makers and planners should immerse themselves in the 'facts' of population, and 'face the disturbing facts squarely'.⁹⁸ This 'fact-facing' was closely allied to particular research

⁹² Ibid

⁹³ V. Jagannadham, 'Summary of the Proceedings of the Second Seminar', in V. Jagannadham (ed), *Family Planning in India: Policy and Administration*, p.219

⁹⁴ Ibid

⁹⁵ Ibid, p.222

⁹⁶ Hans Schenk, 'Book Review: V. Jagannadham (ed), *Family Planning in India: Policy and Administration* (New Delhi, 1973)' *Development and Change* 6:3 (1975), p.109

⁹⁷ Donald P. Warwick, 'The Politics of Research on Fertility Control', *Population and Development Review*, 20: Supplement: The New Politics of Population (1994), p.179

⁹⁸ Gunnar Myrdal, *Asian Drama*, Vol. 2, pp.1524-1525

endeavours, which would produce the facts in question. Frank Notestein stated this plainly, arguing that ‘probably the best way to make progress in a dangerous field is to sponsor ‘research’ rather than ‘action’. Who can be against the truth?’⁹⁹

By the early 1970s, the established truth and population ‘facts’ were coming under attack. One of the best-known studies of the data gathered by ‘overpopulation theorists’ is Mahmood Mamdani’s *The Myth of Population Control*, published in 1972. Mamdani revisited the equally famous Khanna Study and, through it, offered a critique of the major data gathering practices that had characterized family planning and population research in the 1950s and 1960s. His arguments went to the core of how overpopulation itself had been conceived, researched, and measured. There were two common problems, he argued. The first, shared by research and by overpopulation discourse in general, was a ‘misinterpretation of social reality’ – the idea that large families were poor because they were large.¹⁰⁰ The second, which was shared by the family planning studies, was a tendency to misinterpret their results – to attribute declining birth rates to birth control programs, without looking at other factors.¹⁰¹ Mamdani argued that the ‘empirical facts’ collected by ‘overpopulation theorists’ suffered from a serious flaw.¹⁰² Collected through KAP surveys, the research produced “empirical” measures of acceptance or rejection of contraceptives. This was not in itself problematic. However, as Mamdani argues, the interpretation of such findings is crucial. “If one understands it as an *attitude*’, he noted, ‘then the emphasis will be on the social reality in which this attitude originates’.¹⁰³ However, if the finding is presented as a *fact* – which the results of KAP surveys invariably were – then it becomes problematic. Facts, Mamdani argued, were ‘stripped of their relation to other social phenomena’, and without this relationship, their “social life” was obscured – what was in fact a social and collective phenomenon was reduced to the ‘thinking of isolated individuals’. This in turn impacted the whole research design – KAP surveys became oriented towards individual opinions, rather than seeking to understand ‘the basis of the opinions themselves in their social context’.¹⁰⁴

Surveys like the Khanna Study – as well as other ‘experimental’¹⁰⁵ surveys such as the Singur Study and the South Korean Kyong Study – had provided a ‘scientific basis for optimism’, appearing to show that people had ‘favourable attitudes’ to family planning, if not that birth

⁹⁹ Donald P. Warwick, ‘The Politics of Research on Fertility Control’, p.179

¹⁰⁰ Mahmood Mamdani, *The Myth of Population Control*, p.14

¹⁰¹ Ibid

¹⁰² Ibid

¹⁰³ Ibid, p.20

¹⁰⁴ Ibid

¹⁰⁵ They are designed ‘experimental’ because, unlike other family planning surveys, their design included test and control villages. Ibid, p.17

control conclusively lowered birth rates. They also demonstrated, Mamdani argued, the political reasons for this optimism – ‘family planning is considered to be a substitute for structural and institutional change’.¹⁰⁶ This was – as Davis had also noted in 1967 – the argument of the political conservative, a way to induce demographic change without altering the structural status quo. By not accounting for the social life of ‘facts’, overpopulation theorists made a number of egregious errors in both gathering and interpreting their data. The most glaring problem faced by the study was its inability to grasp, and understand, the difference between what people said, and what they actually did – removed from their social context, the ‘facts’ about ‘acceptance’ collected in the survey appeared to depict a version of reality that, when faced with non-use, led to misunderstandings and constant reformulations of study design.¹⁰⁷ This emerged as the ‘KAP-gap’ that plagued family planning researchers and policy-makers in the 1960s. The more serious problem, however, was what Mamdani identified as the complete misunderstanding of the population problem. The Khanna Study had understood overpopulation as an epidemiological and demographic problem when, Mamdani argued, it was actually a sociological one. To the researchers and overpopulation theorists, population was problematic – hampering economic development and keeping people in poverty. However, he argued, to the villages the large family was economically rational; it would lift them out of poverty.

The act – and in many cases the absence – of going into the field and collecting data was also being critiqued more generally in the 1970s. M.N Srinivas gave a critical overview of the status and practice of field research in India, arguing that the lack of field research and flaws in data collection that typified social science research had produced not only bad data, but – as Mamdani had argued – a profound misunderstanding of the realities of life. The need to have ‘useful’ (i.e. policy-relevant) data had turned the study of single villages or small areas into wasted time. And, more significantly, being alienated from ‘grassroots reality’ had led to ‘fanciful assumptions about the behaviour of ordinary people’, resulting in a ‘woeful ignorance’ about the interactions between ‘economic, political and social forces at local levels’.¹⁰⁸ This showed very clearly, Srinivas argued, in how the elite investigator and analyst saw the peasant – as irrational, ignorant, and ‘resistant to progress’.¹⁰⁹ However, much as *The Myth of Population Control* had demonstrated, rationality was contextually and culturally determined and without going ‘into the field’ there was too much distance for this context to be fully recognized.¹¹⁰ The other problem, Srinivas noted, was the division of labour between the data collector and the

¹⁰⁶ Ibid, p.20

¹⁰⁷ Ibid

¹⁰⁸ M.N Srinivas, ‘Village Studies, Participant Observation, and Social Science Research in India’, *Economic and Political Weekly*, 10:33/35 (1975), p.1389

¹⁰⁹ Ibid

¹¹⁰ Ibid

analyst. Not only did this distance create profound misunderstandings about the realities of life in India, it also helped encourage fabrications of another kind – the practice of faking data, particularly for long, complicated, or socially sensitive surveys was rife, he argued.¹¹¹ Faking was not limited only to the surveyor; further up the analysis chain data was often ‘laundered’ – brought in line with other results – so that the data showed, at minimum, a general uniformity. ‘Anyone who bothers’, he argued, ‘will find that underneath the decorous surface there is a whole body of folklore about how investigators fake information and how their supervisors fake supervision’.¹¹²

Mamdani’s account of how researchers had failed to produce the social change they were looking for was echoed by other researchers who were looking back over two decades of research and experimentation. While Mamdani sought to challenge the idea of overpopulation and its empirical basis, others looked at different ways that data had been collected and applied in policy. Comparing the Ernakulam camp experiment and the Athoor experiment conducted at Gandhigram, Davidson Gwatkin attempted to explain why it was that bureaucracies adopted certain innovations but not others. Both experiments had led to a decline in the birth rate, but the Athoor experiment had received significantly less attention than the Ernakulam mass camps. The lack of interest in Athoor typified two larger issues, he argued: the question of effectiveness, and different approaches to development.¹¹³ The Athoor experiment, he argued, was closely connected to community development, while Ernakulam was ‘spiritually linked’ with the ‘production orientation that had replaced community development in the mid-1960s’.¹¹⁴ The difference, he explained, was between Gandhigram’s ‘broad educational approach and concern for the individual’ against the ‘emphasis on the number of acceptors that prevailed at Ernakulam’.¹¹⁵ Explaining why the Government had chosen the camp approach over the extension approach – which included the adoption of other family planning innovations, such as the IUCD and of target-orientated approach – Gwatkin argued that, in the end, evidence had counted for little. ‘Empirical evidence is far from everything’, he concluded. Instead, empirical evidence was interpreted and utilized only to the extent that the ‘temper of the times’ and larger considerations allowed – ‘and only empirical information that fits comfortably into these contexts is acted upon and accepted’.¹¹⁶

¹¹¹ Ibid, p.1390

¹¹² Ibid

¹¹³ Davidson Gwatkin, ‘Athoor and Ernakulam: A Study of Governmental Acceptance of Innovation’ Ford Foundation Records, Unpublished Reports, F18006 [RAC], pp.3-4

¹¹⁴ Ibid, p.5

¹¹⁵ Ibid

¹¹⁶ Ibid

THE 1974 WORLD POPULATION CONFERENCE: REDEFINING THE POPULATION PROBLEM

The actions taken to address and change fertility in India had been predicated on the belief that India was overpopulated. Accepting this belief had led to a series of choices: to transform population through socio-economic development; through a policy of family planning (or both); to advocate 'natural' or artificial methods of birth control' to find the artificial methods that worked best and were 'acceptable'; and, by the late 1960s, to determine whether the program should be voluntary or compulsory.¹¹⁷ These aspects of the programme, however, had come under criticism in the early 1970s, as the political aspects of family planning in India began to be reconsidered in the light of the Third and Fourth Plans. Some debates centred on the use of high motivational or incentive payments during the Fourth Plan, while others considered the role of demographic change in affecting basic democratic procedures such as voting – with fewer people, states would be able to secure fewer seats in Parliament, even as they achieved their family planning goals.¹¹⁸

More broadly, however, countries were beginning to re-assess population control policies in the light of new arguments about development. By the late 1950s, population growth and its negative effect on the economy was considered to be a given. The Second Five Year Plan had expressed with confidence that 'the logic of facts is unmistakable, and there is no doubt that under the conditions prevailing in countries like India, a high rate of population growth is bound to adversely affect the rate of economic advance and living-standards-per-capita'. By the mid-1970s, however, the 'logic of facts' linking population growth to developmental difficulties was coming into question. The debates held in India in the early 1970s had demonstrated the extent to which population experts, policy-makers and field workers were beginning to challenge many of the assumptions that had formed the basis of the family planning program.

The Declaration of Population Strategy for Development generated out of the Second Asian Population Conference held in Tokyo, 1972 reaffirmed the human rights of couples to determine freely the number and spacing of their children, as well as to the information they

¹¹⁷ Vasant Pethe argues that the voluntary / compulsory question was raised only in 1976. However, while compulsion was not implemented until the Emergency, it has been raised and strongly considered as early as 1967. In addition, Marika Vicziany has argued convincingly that the high incentive payments offered to sterilization acceptors acted as a form of coercion even if they were technically voluntary, prior to the emergency. Vasant P. Pethe, 'Compulsion in Family Planning: The Fundamental Considerations' *Artha Vijnana*, 21:2 (1979), p.13; Marika Vicziany, 'Coercion in a Soft State: The Family Planning Programme of India: Part I: The Myth of Voluntarism', pp.373-402

¹¹⁸ J.D Sethi, 'Political Aspects of Family Planning' in V. Jagannadham, *Family Planning in India: Policy and Administration* (Delhi: Indian Institute of Public Administration, 1973), p.244

would need to be able to do so, regardless of financial or social conditions.¹¹⁹ Conferences held in India in the build-up to Bucharest had emphasised similar points. G.S Pathak, Vice-President of India had said in his speech at the Conference on Growth and Human Development (1973) that 'we must seek and find human solutions to the population problems, which are essentially the problems of ordinary men and women'. This, he noted, needed to be recalled in the face of the 'impersonal statistics' and 'population data'. Population policy, he emphasized, had to be 'an integral part of socio-economic development strategies', and the problem solved through international co-operation.¹²⁰

1974 had been designated World Population Year by the UN, and India had used this to provide an impetus to its own programmes at the beginning of the Fifth Plan Period.¹²¹ A World Population Year Committee was constituted, and 'a suitable programme was drafted for observance of the year'.¹²² Unlike the Rome (1954) and Belgrade (1965) Conferences, which had been attended by individuals in their expert capacities, the Bucharest conference was intergovernmental, attended by 138 governmental delegations.¹²³ It had its origins in 1970, when a resolution was passed by the UN to authorize a conference with the objective of considering 'basic demographic problems, their relationship with economic and social development, and population policies and action programmes needed to promote human welfare and development'.¹²⁴ By this time, family planning was believed to be widely accepted, and even respectable.¹²⁵

Many population experts attending the conference had little reason to expect any other than a re-articulation of points everyone already agreed on. The Draft World Population Plan of Action prepared for the Conference displayed this attitude, proposing a 'direct attack on population growth'.¹²⁶ However, the discussions at Bucharest, shaped by a 'resurgence of anti-Malthusian ideology', vigorously rejected the Draft Plan – the Argentinian delegate alone

¹¹⁹ Vincent Health Whitney, 'Population Planning in Asia in the 1970s', *Population Studies*, 30:2 (1976), p.341

¹²⁰ G.S Pathak, 'The Population Question in Developing Countries', in Anthony A. D'Souza, Alfred de Souza, (eds.) *Population Growth and Human Development* (New Delhi, 1974)

¹²¹ J.P Gupta, N.K Sinha, Amita Bardhan (eds.), *Evolution of Family Welfare Programme in India*, Vol. 1, p.69

¹²² Ibid

¹²³ Jyoti Shankar Singh, *Creating a New Consensus on Population: The Politics of Reproductive Health, Reproductive Rights and Women's Empowerment* (Second Ed., London, 2009), p.2

¹²⁴ Ibid, p.4

¹²⁵ J. Mayone Stycos, 'Demographic Chic at the UN' *Family Planning Perspectives*, 6:3 (1974), p.160

¹²⁶ Oscar Harkavy, *Curbing Population Growth*, p.64

proposed 68 amendments to it.¹²⁷ The debates that the conference sparked over the population problem gave 'some older hands a bad case of déjà vu', noted J. Mayone Stycos.¹²⁸ It had seemed, he argued, that in the build-up to Bucharest there was little to be excited about or look forwards to – 'the major opposition to population control' appeared to have been 'muted, if not silenced'.¹²⁹ This impression was soon dispelled upon receipt of the materials produced by the UN. The Action Pack, he said, made it clear that 'every old ghost of the anti-Malthusian past had resurfaced, clothed in the new slick trappings of demographic chic'.¹³⁰ Even the World Population Year Slogan, 'Love the World's People' betrayed this shift, he argued, being as inappropriate 'as an unqualified 'Love Motherhood' sticker at a Planned Parenthood convention'.¹³¹ The second slogan of the conference was 'Take Care of the People and Population Will Take Care of Itself', joined by 'Population is Only a Problem if the World's Wealth Cannot Support the World's People',¹³² which revealed the main thrust of the arguments being made at Bucharest – it was not population numbers that were causing the population problem. Stycos argued that these arguments had resuscitated the classic debate between Malthus and Marx, and was being further buoyed up by arguments and accusations that 'family planning had failed' and that development needed to extend beyond population control. Stycos firmly disagreed with this position, arguing that it set up a false dilemma between family planning on the one hand, and population control on the other.¹³³

The conference gave rise to what Jason Finkle and Barbara Crane describe as a 'severe' conflict between the assembled nations.¹³⁴ Not only was the population problem reaffirmed as an essentially political problem, it was 'significantly redefined' to account for the political and economic aims of, primarily, the underdeveloped countries.¹³⁵ At the Plenary session, delegates from the Eastern European bloc argued that the only solution to the population problem was socialism. China had deliberately aligned itself against this position, attacking the 'country that calls itself socialist', insisting that there was no such thing as a population problem, and

¹²⁷ Ibid

¹²⁸ J. Mayone Stycos, 'Demographic Chic at the UN' *Family Planning Perspectives*, 6:3 (1974), p.160

¹²⁹ Ibid

¹³⁰ Ibid

¹³¹ Ibid

¹³² Ibid, p.161

¹³³ Ibid, p.162

¹³⁴ Jason Finkle, Barbara Crane, 'The Politics of Bucharest: Population, Development and the New International Economic Order' *Population and Development Review*, 1:1 (1975), p.88

¹³⁵ Ibid

optimistically declaring that 'the future of mankind is infinitely bright'.¹³⁶ The delegations from the Third World argued that the population problem resulted from poverty, colonialism, and imperialism in its historical and new forms, and was not the result of population growth.¹³⁷

Two themes dominated discussion at the Conference – the relationship between population and development, and the role and status of women.¹³⁸ While some Latin American and African nations rejected family planning outright, many of the underdeveloped countries in Asia were split. The Republic of Korea pointed to the successes it had achieved with its family planning programme, and Bangladesh openly praised international efforts to promote family planning.¹³⁹ Japan argued that the severity of the population problem was now such that it had transcended national borders and national sovereignty, and needed to be considered 'an international problem'.¹⁴⁰ These arguments reflected broader changes in the international political system.¹⁴¹ As Finkle and Crane argue, the 'politicization of population' that occurred at Bucharest had less to do with the Malthus-Marx debate and instead reflected the 'contemporary struggle' over how resources, wealth and power were distributed between the Third World and the 'industrial nations'.¹⁴² Members of the International Youth Population Conference were also deeply polarized along these lines, and calls to throw off the 'contraceptive corset of the capitalist countries' were made.¹⁴³

Feminists at the Conference – led by Germaine Greer, Betty Friedan and Margaret Mead – were 'in revolt', protesting that the Draft Plan of Action made virtually no mention of women.¹⁴⁴ The single paragraph that had been included, 'only suggested that including them in development might reduce fertility rates'.¹⁴⁵ However, one of the largest 'shocks' of the conference was delivered by John D. Rockefeller. For so long a stalwart supporter of population control and family planning, Rockefeller – in his address to the NGO Tribune – declared that he was 'no longer convinced that 'family planning alone' would solve the population problem'.¹⁴⁶

¹³⁶ Grant J. Burke, 'World Population Conference: An Overview' *The Journal of International Law and Economics*, 9 (1974), p.368

¹³⁷ Ibid

¹³⁸ Ibid, p.369

¹³⁹ Ibid, pp.369-370

¹⁴⁰ Ibid, p.370

¹⁴¹ Jason Finkle, Barbara Crane, 'The Politics of Bucharest', p.89

¹⁴² Ibid

¹⁴³ Kamla Bhasin, 'Youth and Family Planning' *The Times of India*, November 24, (1974)

¹⁴⁴ Matthew Connelly, *Fatal Misconception*, p.314

¹⁴⁵ Ibid

¹⁴⁶ Oscar Harkavy, *Curbing Population Growth*, p.66

'deep and probing reappraisal' of 'the entire population effort' was needed.¹⁴⁷ In making this statement Rockefeller aligned himself with many of the arguments that had been made throughout the early 1970s. He called for the greater integration of family planning with social and economic development programmes, and stressed the need for 'each nation to solve its development problems in its own way'.¹⁴⁸ He also stressed, that role of women needed to be emphasized in development plans, and further to 'recognize that women themselves should decide what their role would be'.¹⁴⁹

In his speech at the Conference, Karan Singh, India's Minister of Health and Family Planning emphasized the importance of a developmental approach to family planning. While contraceptive research and the delivery of family planning service continued to form an important part of India's program, 'we are quite clear that fertility levels can be effectively lowered only if family planning becomes an integral part of a broader strategy to deal with the problems of poverty and underdevelopment'.¹⁵⁰ This, he said, was the 'heart of the problem'.¹⁵¹ Singh's statement offered up the reformulated understanding of the population problem that had been so hotly debated in India in the early 1970s. Overpopulation, he argued, was caused by poverty, and the 'path to family planning' relied on solving the problem of poverty.¹⁵² Singh urged that the main question before the Conference should be to ensure at the international level that there would be co-operation and common action towards 'development on a global scale'.¹⁵³

The World Population Conference provided a platform for underdeveloped countries to argue against the unequal economic international situation, and were, as Finkle and Crane argue, the product of the changing relationship between the underdeveloped and industrialized world.¹⁵⁴ The World Population Plan of Action that was eventually agreed upon reflected many of these ideas. Population was determined to be 'the inexhaustible source of creativity and a determining factor of progress', and the Plan was clear that population problems should not be 'reduced the analysis of population trends only'.¹⁵⁵ Individual needs and the needs of society had to be reconciled, the Plan argued, and the sovereign right of each nation to determine its

¹⁴⁷ Ibid

¹⁴⁸ Ibid

¹⁴⁹ Matthew Connelly, *Fatal Misconception*, p.315

¹⁵⁰ 'Statement by Karan Singh' *World Population Conference* (Bucharest, 1974) [Nehru Memorial Museum and Library, All India Women's Conference, hereafter AIWC, F/1366], p.1

¹⁵¹ Ibid

¹⁵² Ibid, p.2

¹⁵³ Ibid

¹⁵⁴ Jason Finkle, Barbara Crane, 'The Politics of Bucharest', p.108

¹⁵⁵ 'World Population Plan of Action' [AIWC, F/1366], p.1

own population policy recognized.¹⁵⁶ The principles and objectives of the Plan reflected the strength with which underdeveloped countries had made their arguments: the principle aim enshrined population policies as part of social, economic and cultural development, and subsequent aims stressed the importance development, respect for human life, and the role of women in development process.¹⁵⁷

For all their bluster, however, the debates of the Conference were received with relatively little fanfare in India. 'If the conference served any useful purpose at all', one reporter argued, 'it is only in reminding the poorer countries that they will have to fend for themselves'.¹⁵⁸ The lack of a 'coherent strategy' was hardly a surprise. 'The conference produced more heat than light', and had discussed every subject 'except global action for controlling demographic growth', a situation made worse by Karan Singh's 'mental reservations' about the Indian programme.¹⁵⁹ In 1974, India accepted the largest ever grant from the UNFPA - \$40 million - of which \$14 million was earmarked for sterilization programmes.¹⁶⁰ This was, Connelly argues, 'the usual dog's breakfast, only bigger'.¹⁶¹ However, as Banerji argues, in the wake of Bucharest, the Government appeared - if only briefly - to attempt to apply the principle so eloquently expressed by Karan Singh. At the National Conference on Population held in New Delhi in 1974, Singh's argument was taken up by Indira Gandhi, who emphasized 'the integral relationship between general development and family planning'.¹⁶² The Fifth Five Year Plan incorporated the principle of "development is the best contraceptive": 'The primary objective during the Fifth Plan is to provide minimum public health facilities integrated with family planning and nutrition for vulnerable groups'.¹⁶³ The Minimum Needs Programme of the Fifth Plan further emphasized the significance of development to the Fifth Plan. The targets for reduction in birth rates were set at a more realistic level than those in the Fourth Plan had been, and 'family welfare planning' as opposed to 'family planning' was the Plan's emphasis.¹⁶⁴

¹⁵⁶ Ibid, p.5-7

¹⁵⁷ Ibid, 7-9

¹⁵⁸ 'Rich and Poor', *The Times of India*, 4th September, (1974)

¹⁵⁹ K.K Pooviah, 'To No Purpose: Letter to the Editor' *The Times of India* 18th September, (1974)

¹⁶⁰ Matthew Connelly, *Fatal Misconception*, p.310

¹⁶¹ Ibid

¹⁶² D. Banerji, 'Will Forcible Sterilization Be Effective?' *Economic and Political Weekly*, 11:18 (1976), p.667

¹⁶³ Fifth Five Year Plan, quoted in Mohan Rao, *From Population Control to Reproductive Health*, p.44

¹⁶⁴ Ibid, pp.44-45

FROM THE STATISTICAL POPULATION TO THE POLITICAL POPULATION

By 1976, commentators looking back over the early 1970s were assessing the extent of the split showcased at Bucharest. The stress placed by underdeveloped countries on integrating family planning within broader economic and social development frameworks could be taken to reflect a belief that educational programs would work to spread the small family norm, but 'more probably' was an indication of 'unwillingness to go into the hard questions involved in the conflict between the rights of individuals and those of society'.¹⁶⁵ However, underdeveloped countries had not shirked from these debates in the late 1960s and 1970s – instead, they had permeated nearly every aspect of population debate.

The potential of the 'Bucharest era' was soon dashed. While it had seemed as though India were poised on the edge of a 'switch away' from the family planning strategies of the previous decade, difficulties in making the broad structural changes needed to implement the Minimum Needs Programme,¹⁶⁶ tensions within the Congress Party, the growing strength of the Bihar movement and 'widespread political disillusionment' culminated in the declaration of the Emergency and 'reversed the trend'.¹⁶⁷ However, critiques of the population problem begun in the late 1960s and early 1970s continued to develop post-Bucharest. In a 1976 special issue on Population and Poverty, *Economic and Political Weekly* featured articles that challenged the basic assumptions of the population problem – from the meaning of overpopulation to the economic value of 'births prevented'.¹⁶⁸

In his contribution, Mamdani continued to argue against overpopulation, questioning the links between poverty and overpopulation and challenging the existence of the 'population problem' itself.¹⁶⁹ The current neo-Malthusian argument, he argued, was that population growth was running ahead of resource development and that 'imminent catastrophe – hunger, starvation, and social conflict' was to be the national and international result.¹⁷⁰ Critiques from the left, he argued, had taken aim at population problem itself. This was an ideological issue – the problem was not about population but about class, social appropriation and 'natural appropriation'.¹⁷¹ The lack of true national control over resources, which were instead dominated by particular classes, and their further appropriation within an unequal

¹⁶⁵ Vincent Health Whitney, 'Population Planning in Asia in the 1970s', p.342

¹⁶⁶ D. Banerji, 'Will Forcible Sterilization Be Effective?', p.667

¹⁶⁷ Marika Vicziany, 'Coercion in a Soft State: Part I', p.374; Mohan Rao, *From Population Control to Reproductive Health*, p.44

¹⁶⁸ *Economic and Political Weekly*, 11:31/33 (1976)

¹⁶⁹ Mahmood Mamdani, 'The Ideology of Population Control' *Economic and Political Weekly*, 11:31/33 (1976), p.1141

¹⁷⁰ Ibid

¹⁷¹ Ibid

international context were the cause of the problem. Mamdani went further. This ideological critique was just the first step – what was needed was to join it with ‘a *scientific* explanation’ of continued population growth.¹⁷² While population control made sense in one situation, it did not in all situations – neo-Malthusian ‘ideological thought’, Mamdani concluded, “is not simply false...it presents an aspect of reality as reality and obscures the relation between the aspect and the totality’, obscuring specific social and historical circumstances. This was crucial because ‘how a problem is defined, greatly affects the formulation of the solution. What the phenomenon is defined as the ‘population problem’, its core assertion is that people are poor because they are too many. Exploitation is reduced to poverty and the explanation of poverty becomes the poor themselves!’¹⁷³

This line of analysis, which was stridently championed at Bucharest, was taken up by a number of scholars. M.V. Nadkarni argued like Mamdani that large families were, far from being a liability, an asset to the rural poor.¹⁷⁴ The problem, he explained, was in the links that had been formed to establish overpopulation as a concept, particularly regarding unemployment. ‘It is only with regard to the human asset’, he argued, ‘that underutilization is mistakenly taken to indicate unwantedness’.¹⁷⁵ Unemployment was instead an indicator of economic management – and there could exist, he pointed out, high unemployment in a country with a low population density. The second argument for overpopulation was expressed as ‘control population, banish poverty’, and this too was not based in reality. Instead, it served to distract attention away from the exploitation of the underdeveloped world: ‘the accusing finger is at our breeding habits and not at the developed countries!’¹⁷⁶

Ramkrishna Mukherjee also took up arguments about family planning, linking it to other development efforts that had been undertaken in India. The community development projects of the 1950s had been launched ‘with much fanfare to transform rural society. Entrepreneurs were seen to emerge in the villages and ‘social change’ in village India was predicted’.¹⁷⁷ However, it soon became clear that the ‘nonconformist’ entrepreneurs had reverted back to being ‘conformist’ landowners and users in their new settings. Tangibly, the project had produced new Institutes – particularly the National Institute of Community Development – but the general consensus had been that the overall effect of the programs was

¹⁷² Ibid

¹⁷³ Ibid

¹⁷⁴ M.V Nadkarni, ‘Overpopulation and the Rural Poor’, *Economic and Political Weekly*, Vincent Health Whitney, ‘Population Planning in Asia in the 1970s’, *Population Studies*, 30:2 (1976), p.1163

¹⁷⁵ Ibid

¹⁷⁶ Ibid

¹⁷⁷ Ramkrishna Mukherjee, ‘Family and Planning in India’ (Delhi, 1976), p.11

to accentuate the economic crisis in rural areas – the rich had gotten richer, and the poor became poorer.¹⁷⁸ In the late 1960s, the Green Revolution had been proclaimed, but ‘the greenery did not spread out of the seed bed’.¹⁷⁹ And now, in the 1970s, he argued, ‘we do not speak of the green revolution but of poverty, inequality, and the weaker sections of society’.¹⁸⁰ These experiences, he noted, cast doubts about the eventual outcome of the family planning programme. ‘Presently, euphoria prevails on the expectation of a drastic fall in the birth-rate from the scattered facts obtained from various parts of India’. But, he questioned, ‘how reliable may this prognosis be in the light of our experience with the other developmental actions and programs? The quandary prompts us to re-examine the crucial question to be asked for any course of planning to be successful – can it develop into a self-generating process?’¹⁸¹

The outcome of the changing nature of the population problem, and of the stance taken at Bucharest also had a lasting impact on how population was perceived by the population establishment. Significantly, the Bucharest Conference served to ‘disturb the easy consensus’ that had previously dominated population thought.¹⁸² Frank Notestein admitted that Bucharest had been ‘humbling’.¹⁸³ In the wake of the Conference, many population experts turned to re-examine the basis of population thought. A second population journal, *Population and Development Review* was founded in the wake of Bucharest. Located in the social science research division of the Population Council, the journal rejected the narrow technical focus of *Demography* and aimed to promote a broader research focus, looking to the relationships between economic, social and demographic change, as well as at population policy.¹⁸⁴ The Editor’s Note wrestled with the problems that had preoccupied demographers and population experts throughout the 1970s: how to advance individual freedoms while also working toward the common good? How should public policy navigate between socioeconomic development and population change?¹⁸⁵

John C. Caldwell applied many of these arguments to a reformulation of demographic transition theory. Caldwell argued that Transition Theory’s basis rested largely on its definition of ‘rational’.¹⁸⁶ To obscure the fact that people could be ‘socially rational’, Transition Theory

¹⁷⁸ Ibid

¹⁷⁹ Ibid

¹⁸⁰ Ibid

¹⁸¹ Ibid

¹⁸² Oscar Harkavy, *Curbing Population Growth*, p.63

¹⁸³ Matthew Connelly, *Fatal Misconception*, p.315

¹⁸⁴ Susan Greenhalgh, ‘The Social Construction of Population Science’, p.49

¹⁸⁵ ‘Editor’s Note’, *Population and Development Review*, 1:1 (1975), p.iii

¹⁸⁶ John C. Caldwell, ‘Towards a Restatement of Demographic Transition Theory’, *Population and Development Review*, 2:3/4 (1976), p.326

typically referred only to 'economic rationality', which relied on a set of ethnocentric and Western values.¹⁸⁷ In essence, Transition Theory argued that the 'economically rational' family was the nuclear family, and it was rational for the family to maximise expenditure within it. However, Caldwell argued, this was not the only form of economic rationality – all societies were economically rational. Accepting this, he argued, was crucial to understanding population change, to rework demographic transition theory, and to 'make adequate predictions for planning purposes'.¹⁸⁸ This reformulation, he explained, righted an aspect of Transition Theory that had been hotly contested at and leading up to Bucharest, namely that the Third World's fertility behaviour was 'irrational'.

While critiques of family planning and the population problem had opened up new areas of intellectual consolidation, the outcome of the Bucharest conference, and the 'post-Bucharest' world was one of heightened debate rather than a new consensus. In 1975, Chandrasekhar also set about assessing India's population policies and the aims of the Government for the Fifth Plan period, mounting a staunch defence of family planning. The Government, he noted, 'continues to show a legitimate concern with the nation's population problem', despite the reduction to more 'realistic' targets.¹⁸⁹ While the Government had allocated \$2,316 million to family planning, health and nutrition, the emphasis on integrating family planning with other health services, left family planning a total outlay of \$688 million. Despite the fact that this was an increase of \$248 million from the Fourth Plan, broken down, he argued, this amounted to \$1 per couple per year, which 'is not very much'.¹⁹⁰ This dollar per year was help the Government achieve its more modest goal of reducing the birth rate from 38 to 30 per thousand by 1980.¹⁹¹ The 'weakest spot' of the family planning programme was the 'base itself' - the rural majority.¹⁹² While the programme had been largely successful in spreading the message of family planning, getting people to act on it remained problematic – a problem that hampered the Government's attempts to meet its targets 'before economic disaster befalls India'.¹⁹³ What was needed, he argued, was a 'national commitment...on the part of all political parties, both national and regional on the one hand, and secular and communal-

¹⁸⁷ Ibid

¹⁸⁸ Ibid, p.327

¹⁸⁹ Sripati Chandrasekhar, 'India's Population Problems and Policies', *The Round Table*, 65:257 (1975), p.15

¹⁹⁰ Ibid

¹⁹¹ Ibid

¹⁹² Ibid, p.17

¹⁹³ Ibid

religious on the other'.¹⁹⁴ Such a commitment had to spring from the 'remote half-forgotten villages' as much as from New Delhi.¹⁹⁵

The 'ideological ambivalence' of the Government must be challenged, Chandrasekhar argued, particularly in the face of opposition from Indian Communists, and from those who would denounce family planning 'as an imperialist-cum-capitalist trick of the Government'.¹⁹⁶ The Government of India, he argued, had been driving the creation of the largest official family planning programme in the world. This was, he maintained, 'easily the strongest factor in the promotion of birth control in India today'.¹⁹⁷ Despite the successes of the programme, the familiar problems of motivation, communication and finding an ideal contraceptive remained – 'how does one motivate an average husband or wife...in the milieu of rural poverty or urban slums...without using coercion or compulsion?'¹⁹⁸ Communication and contraception were other serious problems – illiteracy, and the problem of reaching people, and the further problem of having an ideal method to supply them with remained unsolved.¹⁹⁹ In the face of these problems, he argued, there was a 'great need to mount a campaign.... to qualify the right to reproduce'.²⁰⁰ The constitutional and legal right to have 'an unlimited number of children', he elaborated, 'must be questioned and should not be taken for granted any longer'.²⁰¹ In its place, Chandrasekhar offered up a set of 'fundamental biological obligations' that all married couples should abide by, including limiting family size to two, with the third child 'considered an unwanted child by society', to not 'produce children in response to political demands, religious injunctions or cultural compulsions', to not have children who would be 'defective' or 'less than normal', and finally, to have the two-child norm recognized throughout society.²⁰²

In the 1950s, Nehru had advocated a scientific approach to family planning that embraced and advanced the social good. By the 1970s, debates about the social good and how best to achieve it were once again at the forefront of population in India, and around the world. Running the gamut from abandoning the 'contraceptive corset' imposed by the West to the imposition of 'biological obligations', intellectuals, population experts, and policy-makers grappled with how to best approach population. Yet, while the debates of the mid-1970s shared much of the same outlook, the population problem of 1975 was in many ways appreciably

¹⁹⁴ Ibid

¹⁹⁵ Ibid, p.18

¹⁹⁶ Ibid

¹⁹⁷ Ibid

¹⁹⁸ Ibid, p.23

¹⁹⁹ Ibid, p.24

²⁰⁰ Ibid, p.26

²⁰¹ Ibid

²⁰² Ibid, pp.26-27

different from that of 1951. For the better part of the twentieth century, India had been engaged in sweeping development projects intended to transform the nation. Part of these projects had involved the collection of an unprecedented amount of new information about the population of India. Indeed, 'the population of India' had itself emerged out of this project – as an aggregate figure which could be broken down and analysed according to various categories, collected through the census, the national sample survey, vital statistics, and a host of surveys and other research. It also emerged as part of a broader understanding about the relationship between 'population' – made up of individuals – and the national population, as the society.

The early surveys had revealed an optimism about the utility of research and data to tell the Government what the people wanted. Chandrasekhar had himself argued this in presenting some of his earliest work on India – the value of public opinion, he had explained, was that it was often far ahead of the Government; by canvassing it and making it available, the Government could be attuned to what the people wanted, and provide it to them. Yet, by the mid-1970s this had been reversed. Governments, on the basis of 'scientific research', could know and understand what was best for people, and obligate them to act in particular ways. However, the basis for these claims had been eroded over the late 1960s and early 1970s. Social scientists and population experts argued that aggregated data obscured the people on which policies were acting. Revisiting the seminal studies on which policies had been formulated revealed a wide range of errors and assumptions, all of which were challenged in a variety of forums. Demographic transition theory itself came under fire, as claims about economic rationality, social rationality, and the 'value' of fertility were reconsidered.

CONCLUSION

India's demographic 'dividend' is now a popular and powerful idea driving a new reading of population, planning and prospects for the future. Rather than holding India back, there is renewed hope that a large and young population could hold the key to economic growth, and even to help solve the problem of poverty.¹ Yet, as Jyoti Shankar Singh highlights, the demographic dividend has not eliminated the idea that India also has a population problem – the need to stabilize population growth remains a concern of the Government, and arguments in favour of 'severe methods' to achieve demographic aims remain. 'Population control', Singh observes, 'has not gone out of vogue in India, though nobody can define what population control would mean in practice'.² Many of the suggested methods, however, will seem familiar: incentives and disincentives, cash bonuses, birth spacing and education, alongside maternal and infant health, and increased access to family planning and health services. Coercive measures, Singh believes, are untenable after the Emergency and incompatible with democracy.³

This thesis has explored aspects of how population control came 'into vogue' in India, and how – between the 1930s and 1970s – demographers, social scientists and policy-makers worked to define not only what population control meant, but also how to carry it out. While this story has most commonly been told through a focus on how the Indian government and predominantly American foundations acted to control population through contraceptives, this thesis has attempted to reveal the importance of other aspects of the program: research, data and policies intended to produce social change.

This thesis has argued that research practices and the data collected by demographers and social scientists in India are crucial to understanding how the population problem was framed, understood, and acted on. Early attempts to define the population problem, particularly as it related to broader projects of national development, raised a host of new questions and promoted the development of new methods of research. The debates about population that occurred in the late 1930s and the early 1940s reveal the extent to which concern about population was centred around knowing the 'facts', including the problem of how to collect population data and where to collect it from. Bound up with changes in how the census was being conducted – particularly the growing use of tabulating machines and the rise of new sampling techniques – population became accessible to statisticians and the state in new ways:

¹ Jyoti Shankar Singh, 'Is India Moving Towards Population Stabilization?' *Inter Press Service*, March 1st, (2011)

² Ibid

³ Ibid

as the aggregated whole presented by the census, but also in terms of specific locations – particularly the village. Contained within these new ways of grasping population statistically were larger questions about whether population could be considered a problem. While there was undoubtedly an established core of birth control activists and intellectuals who, for numerous reasons, believed population was a problem, there was no agreement as to why this was so: population was not one problem, but many – it was about food and agriculture, eugenics and sex, poverty and development, war and peace. To these many arguments were added new ones, in particular, about whether the population problem was local, regional or national.

Research and data are the key to understanding how Indian debates about the population problem that continued into the post-colonial period navigated and negotiated with the rising tide of American demography in the post-war world. Indian and American demographers, who were closely connected through international intellectual networks as well as through their interpretations of demographic change, nevertheless had key differences. Most often seen from the perspective of American demographers, the Indian Government's 1952 inclusion of a population policy in the First Five Year Plan is presented as the start of national planning and the international population control movement. However, by looking to how demographers and social scientists worked to collect their data and understand population in the years leading up to the First Plan, it is clear how a 'national' policy emerged out of data collected on a regional and local basis. Carrying on from the early 1940s, demographers and social scientists worked to create the 'national population problem' on which policy could be made through the use of the new methods of research popularized during the Second World War: the sample survey. The debates over the National Sample Survey, about the use of data for policy-making, about the links between demography and development, and the new arguments being made by the private and non-state research efforts of demographers and social scientists were key in linking population to ideas about the nation, development, the economy, and planning – both national planning, and family planning – in the early 1950s.

Arguments about fertility change linked to broader social change were closely connected to the understanding of the population problem that emerged from the work of demographers and social scientists on the attitudes and practices of family planning in the First and Second Plan periods. As policy shifted from the 'passive' approach of the First Plan to the more interventionist approach of the Second Plan, and the infrastructure for demographic research and family planning research became more closely intertwined, the importance of motivation to family planning increased. The growing importance of KAP survey research helped to make attitudes available to policy makers and to drive the importance of motivation as a point of policy intervention.

This thesis has argued that attempts to understand and manipulate the social processes of fertility change (to practice ‘social engineering’) through campaigns of education, advertising, incentives and disincentives are as significant for understanding the history of population control as medical, technological and biological interventions to lower fertility (through contraceptive drugs or techniques). By the Third Five year plan the family planning policy had undergone another shift, moving from an emphasis on research-cum-action to action-research, and a broader change in programme philosophy reflected in the shifts from the clinic approach, to the extension education approach, to the IUCD approach. This change coincided with the changing relationship between family planning, population and development, with development increasingly predicated on fertility decline. The 1960s also saw a change in debates about scale. While in the 1950s there had still been discussion about whether a ‘national program’ should be implemented the same way for all people and places, the policies implemented by the mid-1960s no longer had these concerns: IUCDs were for all women, incentives and disincentives for all families. The short-lived extension education approach was also an attempt at an alternate model of development and family planning that was, by the mid-1960s, rejected in favour of IUCD. The rejection of the extension education approach was further indicative of the changing relationship between research and policy – while the extension education research was largely considered to be successful, the policy was not. By 1966, despite evidence in its favour, the approach was passed over.

The late 1960s and early 1970s are often regarded as an innovative period in population policy, characterized by the use of new administrative techniques such time-bound target-oriented policies, mass camps and widespread use of incentives and disincentives, with heavy emphasis on vasectomy and the IUCD. However, this thesis has shown that it was also a period of innovation in education, mass communications and the commercialization of contraceptives. Many of the defining features of the inter-plan period and the Fourth Plan – the incentives, targets, and the attempt to spread the small family norm – had their basis in the broader project of family planning as behavioural change that had its origins in research and emphasis on attitude and motivation that had emerged during the late 1950s and 1960s. During the late 1960s, the emphasis on social change that had characterized the programs of early 1960s was reoriented away from the small group onto the individual. This reached its apex in the mass camps of the 1970s. This period also saw a shift in the relationship between research and policy – while research had been seen as a base for policy in the 1950s, by the late 1960s it was increased being deployed to assess policy outcomes. This again raised the problem of representativeness. Policies had been developed on the basis of unrepresentative data (in areas with higher than average access to administrative and medical infrastructure), which was, in the context of a target-setting approach conducted on a per-head basis, unable to account for regional variations making targets unrealistic if not completely unobtainable. The inter-plan period and the Fourth Plan period saw the rising importance of individuals as well as the

aggregated whole. It also saw the growing significance of technological solutions to the problem, which were married under Chandrasekhar during his period as Minister of Health and Family Planning, with widespread efforts to instil - through mass communication and commercialization schemes - the small family norm. Underlying this was the idea that modifying individual behaviour would change society, in stark contrast to the arguments of the 1950s that posited widespread structural change as the key to lowering fertility.

This thesis has argued that population control policies carried out in India in the second half of the twentieth century need to be considered as predominantly national arguments made in the context of debates about economic growth and national development and population. The politics of demography and population control had, since the late 1940s and early 1950s, most commonly been inflected around debates about development - in particular, around national planning. However, by the 1970s, demographers, social scientists, intellectuals and policy-makers were, in addition to engaging with arguments about development - raising questions about individual rights and the social good, the connection between demography, democracy and population, the potential justifications for coercion and the impact of a highly unequal international economic order. These debates revived many of the questions that had been asked about demography, data, population and the state since the 1930s and 1940s: what data was needed for policy making; what were the empirical facts about population; what scale should population be considered on; what was the relationship between population and development and; who had the appropriate expertise? These were joined by new questions that had emerged over the course of India's programme - how should these problems be addressed in a democratic way; how should the relationship between individuals and the social good be considered, and; was there a place for coercion or compulsion?

These questions were raised against the backdrop of emerging challenges to policies of population control, development, and modernization raised by the Third World in the 1970s, and had a long-lasting impact on the international population control movement. These challenges were most strongly expressed at the 1974 World Population Conference, where the importance of national sovereignty was reaffirmed and the ideological and empirical basis of population policies challenged. The legacy of the early 1970s, both in the arguments for and against population control remains in the debates about population and population policy today, with many of the same questions and concerns being raised.

FUTURE RESEARCH

In writing this thesis several avenues for future research have emerged. The first is the need to contextualize India's family planning programme in the context of the many other development

schemes being carried out in India. Recent work by Daniel Immerwahr⁴ has indicated the importance of looking at development schemes such as Community Development and their value in unsettling narratives about science and modernity in Independent India. Family planning, which is likewise often cast as part of a modernizing narrative, could be productively re-cast through greater contextualization in the other development schemes being carried out by the state, private enterprise and local and international non-governmental organizations at this time.

Secondly, whilst the majority of the existing literature on population control has emphasized the significance of America (in term of experts, ideology, financial aid, and political influence), this thesis has shown the significance of Indian expertise, research, and policy-making in the formation and implementation of population policy. Future research might productively be conducted looking at the role of India in influencing the population policies of other Third World countries during this period. The establishment of India as a regional hub for demographic research during the 1950s has not been explored, and neither has the impact of Indian schemes of mass communication and family planning education (in particular, the Red Triangle), which were exported and adopted as the symbols of family planning in other developing countries. This research could work towards reframing India not as a 'laboratory' or recipient of population policies or development policies, but rather as an instigator and exporter of policy, expertise and ideology. In a similar vein, while the role of American expertise and models of development have been widely addressed in literature on population and family planning, impact and significance of the ideological, political and programmatic relationship between the Soviet Union and China has not been widely considered.

Finally, while this thesis has approached the importance of new methods of collecting data and doing research, it has only scratched the surface of the importance of new forms of information processing for how data was recorded, managed and understood. The importance of the Hollerith machine (and other tabulating machines) in the 1930s and 1940s, and of the digital computer in the 1960s has received only minor attention in the literature, despite the revolutionary impact these technologies had on practice.⁵

⁴ Daniel Immerwahr, *Thinking Small*

⁵ For example, see Jon Agar, *The Government Machine: A Revolutionary History of the Computer* (Cambridge, 2003)

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